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MEXICAN MIGRATORY WORKERS OF SOUTH TEXAS

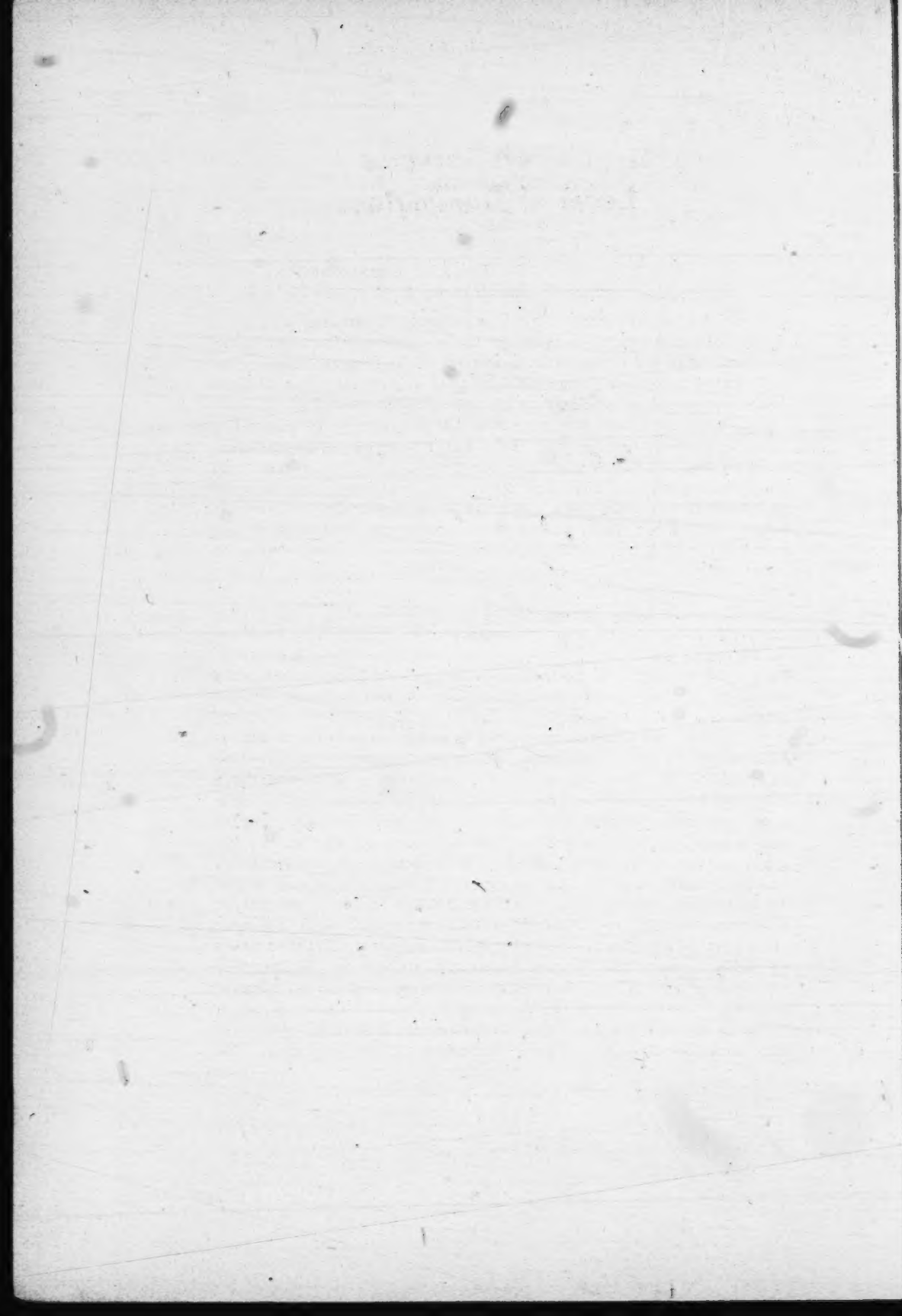
By
Selden C. Menefee

Under the Supervision of
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Chief, Social Research Section
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Letter of Transmittal

WORK PROJECTS ADMINISTRATION,

Washington, D. C., July 1, 1940.

Sir: I transmit herewith an analysis of the working and living conditions of a representative group of Mexican migratory agricultural workers in the Winter Garden Area of south Texas. The activities of this group include the principal types of farm labor open to the Mexicans.

The Texas Mexicans are one of the largest groups of migratory farm workers in the Nation. They furnish labor that is essential to the agriculture of the Southwest, the Middle West, and the Plains States. They migrate in family groups from one crop to another, returning year after year to cultivate and harvest beets, cotton, spinach, onions, and other crops. Because of the regularity of their work patterns, developed through years of experience at this type of work, they had comparatively little total family unemployment in 1938, the year covered by the survey. Their average annual income was also somewhat higher than the averages for migratory families previously studied in Arizona, California, and other States. The relationship between regularity of employment, incomes, and social conditions among the Mexicans is one of the most interesting aspects of the present report.

Relief was not a widespread problem among these Mexican migratory workers in 1938, although during the depression an increasing number of them had asked for assistance from the Works Progress Administration, the Federal Surplus Commodities Corporation, and other Federal agencies. For most such families, public assistance provided a means of getting through the winter and early spring months until work was available in beets or cotton. In the future, however, the Mexicans of rural Texas may become an increasing relief problem if employment in beets and cotton continues to decline, because of mechanization, as it has done in recent years. The report therefore includes a brief summary of the prospects for Mexican migratory workers in the light of production trends and the tendency toward mechanized farming methods.

The study was made by the Division of Research, under the direction of Howard B. Myers, Director of the Division. The

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IV • LETTER OF TRANSMITTAL

collection and analysis of the data were supervised by John N. Webb, Chief of the Social Research Section. The field work was supervised by Orin C. Cassmore, and the report was written by Selden C. Menefee. Special acknowledgment is made to Rebecca Pfefferman and Beatrice Mathieson, who assisted in preparing the data for analysis; Grant D. Clark, of the Bureau of Agricultural Economics; Leslie R. Hawthorn, of the Winter Garden Experiment Station in south Texas; and others who read and criticized portions of the report in its preliminary phases. \

Respectfully submitted.

CORRINGTON GILL,
Assistant Commissioner.

COL. F. C. HARRINGTON,
Commissioner of Work Projects.

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**Mexican Migratory Workers
of South Texas**

VII



INTRODUCTION

THE PROBLEM of migratory agricultural labor, which has received such wide attention recently, is by no means new. It arose many years ago with the first development of large-scale, specialized farming. As many as a quarter of a million American workers a year did seasonal labor in wheat from 1900 until 1920. Many of these started with the first harvest in Texas and worked northward to end the season in the spring-wheat areas of the northern Plains States and Canada. After 1920, however, this huge crew of harvest hands was largely displaced by the combine harvester.¹

After the first World War two new types of agriculture requiring large supplies of seasonal labor grew increasingly important: fruit and winter-vegetable growing in the southern climates of California, south Texas, and Florida; and cotton growing on the sparsely populated high plains of west Texas and Oklahoma and in the irrigated valleys of Arizona and southern California. These crops were not so susceptible to mechanization as wheat, and as a result the demand for seasonal workers assumed new proportions, particularly in the Southwest and on the Pacific coast.

The extension of large-scale farming, a system in which large ranches are operated as incorporated businesses, has also contributed to the demand for seasonal workers. High peaks in labor demand came when the specialty crops of these "factories in the fields" matured. Often local workers were not available in sufficient numbers to harvest the crops, so this type of agriculture came to depend on migratory seasonal workers from distant areas.

After the onset of the depression the number of migratory workers began to grow more rapidly than the demand for their services. This aggravated the "problem" aspect of seasonal agricultural labor—the maladjustment between labor demand and supply—and kept wages at a low level. Numerous surveys in the past decade have shown average cash incomes of \$200 to \$500 per year for families in migratory work.

¹Taylor, Paul S., "Migratory Farm Labor in the United States," *Monthly Labor Review*, Vol. 44, No. 3, March 1937, pp. 537-549.

One result of these low wages was a high labor turnover in seasonal agricultural work. In addition, many surplus workers, unable to get relief, medical care, or adequate housing in the months when no jobs were available to them, suffered from hunger and exposure.

The problems of the Mexican migratory workers of Texas have been less publicized than those of California farm workers, for several reasons. The Mexicans are of a different racial and cultural group from other migratory workers; and, partly because of language difficulties, they are less vocal in their desire for higher wages and better working and living conditions. But their status and problems are not essentially dissimilar to those of migratory farm workers in other regions.

The existence of a reservoir of low-paid Mexican labor just across the border has been from the beginning an important factor in the development of large-scale agriculture in south Texas. Mexicans came across the border by the thousands in the years just following the World War to work on farms at wages approximating a dollar per day. In 1910 there were 226,000 Mexicans in Texas; by 1930 the number had increased to 683,000.²

The Texas Mexicans have proved to be a more stable group of migratory workers than the various racial minorities—Chinese, Japanese, Hindus, Mexicans—who have been employed in California agriculture. Most of them have stayed in Texas and are still doing the same type of work that they did when they first arrived. They harvest the spinach, onions, and other small crops in the Winter Garden Area and the lower Rio Grande Valley during the winter and spring; do most of the State's cotton work; and shell pecans in San Antonio, Laredo, and other cities.

In the sugar-beet fields of the North the Mexicans have largely displaced other groups of workers, just as refugees from the Dust Bowl have displaced Filipinos and Mexicans in California. In the Mountain and Plains States Mexicans have taken the places of German-Russians who blocked and topped beets early in the century but who have now become farm owners or tenants; and in the Midwest they have succeeded European immigrant groups such as Belgians and Poles.³

For many years the Mexicans in certain areas have had a virtual monopoly of unskilled work in sugar beets. A Nation-wide survey showed that in 1935 two-thirds of all sugar-beet field workers were Mexicans.⁴ They seem unlikely to drift away from the beet

²Bureau of the Census, *Fifteenth Census of the United States: 1930*, Population Vol. II, U. S. Department of Commerce, Washington, D. C., 1933, p. 44.

³Taylor, *op. cit.*

⁴Johnson, Elizabeth S., *Welfare of Families of Sugar-Beet Laborers*, Bureau Publication No. 247, U. S. Department of Labor, Children's Bureau, Washington, D. C., 1936, p. 18.

fields to other types of work. The farmers like them as field laborers because they are quiet, hard workers who keep to themselves; because their large families contain several workers each; and because most of them disappear in the winter "over the horizon" to their homes in Texas and other Southwest States. The Mexicans accept this type of work because the wages in beets are higher than those paid in cotton and other crops raised in the Southwest.

Migration has become a way of life with the Mexicans, who have in turn become accepted as a stable source of labor by growers of cotton, vegetables, and other crops in Texas, as well as by sugar-beet growers in the North. The low wages that prevail in these types of work are partly offset by the fact that several members of each Mexican family usually work in the fields. In addition, by migrating from one crop to another, many of these families are able to find some sort of employment through most of the year, so that their annual earnings are somewhat higher than those of most migratory workers in other places.

The present study is one of a series of WPA surveys in the general field of seasonal and migratory labor. The Texas Mexicans are important because they constitute one of the largest groups of migratory workers in the country. Those who make their headquarters in south Texas are particularly interesting because of the extent to which they have been able to dovetail employment in various crops, reducing total family unemployment to a minimum.

Crystal City, in Zavala County, Tex., was chosen as the location of the study for several reasons. It is similar in many ways to the dozens of towns in south Texas where Mexican migratory workers return each year to spend their winters. It is a concentration point for Mexican labor employed not only in spinach but in cotton, onions, and sugar beets as well. Thus it afforded an exceptional opportunity to study the various work patterns characteristic of Mexican migratory agricultural labor.

An additional favorable circumstance was the fact that the Division of Research had just completed a survey of an urban group of Texas Mexicans, the pecan shellers of San Antonio, covering the year 1938.⁵ By extending this study to Crystal City, the Division was able to obtain similar data from a representative rural group for the same calendar year as that covered by the San Antonio study. It was then possible to compare the city and farm groups.

The 300 families interviewed in Crystal City comprised a random sample of approximately one-third of all Mexican families

⁵ Menefee, Seldon C. and Cassmore, Orin C., *The Pecan Shellers of San Antonio*, Division of Research, Work Projects Administration, Washington, D. C., 1940. Data for all comparisons of San Antonio Mexicans with those of Crystal City are derived from this survey.

in the town and its immediate vicinity. Three Spanish-speaking interviewers obtained information from the heads of the families. The material thus gathered was checked against other sources whenever possible.

The data here presented should prove useful in supplementing the more general discussions of Mexican labor which have appeared in recent years.⁶ With the San Antonio study, they may cast considerable new light on the Mexican's place in our economy, his role as a migratory seasonal worker, his wages, and the conditions under which he works.

⁶See especially Taylor, Paul S., *Mexican Labor in the United States*, University of California Publications in Economics, Vols. 6, 7, and 12, Berkeley: University of California Press, 1930-1934.

SUMMARY

CRYSTAL CITY, Tex., is a winter concentration point for Mexican workers in the vegetable industry of south Texas. It is the center of the Winter Garden Area, the most important spinach-producing district in the United States.

The spinach industry first reached large proportions in the Winter Garden Area about 1924. Production increased steadily from that time until 1932, when the peak in shipments of fresh spinach was reached. During this period of expansion thousands of Mexican workers came or were brought to Crystal City to harvest the spinach crop.

In 1933 spinach shipments from Texas began to decline. The drop was greatest in the Winter Garden Area. The major cause of the decline there was the weed problem, which resulted chiefly from poor soil management. Other factors included soil depletion in some areas, epidemics of plant diseases, frosts, and rising costs of irrigation. Shipments from Crystal City dropped to half their former level after 1934. Meanwhile there was a decided trend toward larger plantings of spinach in the non-irrigated portions of the State, east of the Winter Garden, where costs of production were lower.

The decline of spinach production around Crystal City profoundly affected the Mexican spinach workers. Wages dropped sharply, and the workers had difficulty in earning enough to support their large families. By 1938 many of the Mexicans could not find more than 3 or 4 days' work a week even during the spinach season. As a result, economic distress increased in the Mexican community. A few Mexican families moved away from Crystal City, but the majority continued to return each autumn because a little employment in spinach was preferable to no work at all during the winter season when jobs were scarce.

WORK PATTERNS AND EARNINGS OF THE MEXICANS

Most of the 1938 work histories of the 300 Mexican families studied had one element in common: more than nine-tenths of the families worked in spinach at some time during the winter harvest season, which normally lasts from late November to the

end of March. When all the spinach was cut and shipped, 19 out of 20 families migrated north or east to work in other crops. Almost a third got in a few weeks' work in the Texas onion harvest before going on to beets or cotton. Over 60 percent of the families worked in the sugar-beet fields throughout an area extending from Michigan to Montana. A third of all the family groups worked at picking cotton from July until late autumn. Almost half of this latter group also found work in chopping cotton before the picking season started.

These four crops dovetailed with one another so neatly that in only one month of the year, April, did total family unemployment rise above 4 percent. In spite of this regularity of employment, however, wages were so low that many of the Crystal City families were in need at the time of the survey.

The average¹ weekly earnings of the Mexicans in spinach work were \$3.13 per worker. Total family cash earnings from this crop averaged \$124 in 1938. Large plantings of spinach are common in the Winter Garden Area, and the growers usually deal with labor contractors, who have paid 5 cents per bushel to the spinach cutters in recent years. Because of dropping production, there is now a surplus of labor around Crystal City.

Sugar beets are the major source of income for most of the Mexicans of Crystal City. Average weekly earnings from this source were \$6.33 per worker in 1938, and average family cash earnings from beet work were \$400 for the year. These amounts would probably have been somewhat lower except for Government regulation of wages and production in the beet industry under the Sugar Act of 1937. An increasing number of Mexicans have sought work in beets in recent years, and in 1938 a surplus of workers cut into the earnings of beet laborers in some places. Because of the wages, living conditions, and relative lack of racial discrimination in the North, the Mexicans consider sugar-beet work more desirable than cotton work.

Of the 300 survey families 100 were employed in cotton in 1938. Their total cash earnings from cotton work averaged \$278 per family. To earn a weekly average of \$4.22 per worker at the predominant rate of pay (50 cents per 100 pounds), more than three members per family, including many children under 14 years of age, worked in the fields. Living conditions of cotton workers were bad; housing facilities furnished to the pickers were overcrowded and unsanitary; and in some places houses were lacking altogether. Migration of families following the cotton crop was haphazard, although the Texas State Employment Service was exercising increasing control over the workers' movements in order to avoid undue disorder and hardships.

¹The term "average" refers to median when used in connection with data on the 300 Mexican families interviewed.

Onion work was comparable to spinach work with regard to wages and working conditions. The onion season is very short, however, and earnings averaged only \$43 in cash per family from this crop in 1938.

Mexican families employed at miscellaneous farm work averaged \$71 in cash from this source during the year.

FAMILY INCOMES IN 1938

The Mexican families studied in Crystal City had average incomes of \$506 in cash—\$561 in cash and kind—in 1938.² Crystal City families were large (averaging 5.5 persons), and some of their income was consumed by traveling expenses, since nearly all the families migrated in 1938. As a result of these factors, the average family found it difficult to subsist on its earnings.

Families with beet work as their principal source of income had the largest total annual earnings, \$611 per family in cash and kind. Cotton families were second, with nonfarm and miscellaneous farm families at the foot of the income scale. Earnings varied with size of family and number of workers. The range of incomes in 1938 was wide, with 10 percent of the families earning under \$300, and 4 percent earning over \$1,500, cash and kind. The larger incomes were nearly always those of very large families containing many workers. Most of the family incomes fell between \$300 and \$699.

SOCIAL CONDITIONS

The Mexican sections of Crystal City form a large semirural slum. More than half of the Mexicans own their houses or shacks, but most of the dwellings in the Mexican quarter are crudely built and in very bad repair. Few have electricity or plumbing. The houses are badly overcrowded; there was an average of 2.6 persons per room at the time of the survey.

As a result of low incomes, poor housing, and bad sanitation, disease is widespread among the Mexicans. Tuberculosis and diarrhea have taken a particularly heavy toll. The local health service is unable to care for all of those who need medical assistance.

Education of the Mexicans is also on a low level, partly because family migrations make it impossible for the children to attend school regularly. In 1938 the average 18-year-old youth had not completed the third grade of school.

The Mexicans have had difficulty in obtaining relief, mainly because of their lack of citizenship and their employment at agricultural labor during most of the year.

²This was about twice as high as the average for the Mexican pecan shellers of San Antonio, who were less experienced as agricultural workers and who had fewer workers per family.

PROSPECTS FOR THE MEXICANS

The decline in spinach production in the Winter Garden Area is likely to reduce further winter employment among the Mexicans. A revival of the spinach industry or the growth of diversified farming might halt this trend, but there are few indications that either of these two developments is likely to take place in the near future.

Technological changes in beet and cotton production point to the gradual displacement of a considerable number of workers in these crops in the future. Spinach and onions seem less likely to be further affected by mechanization; but the net effect of decreased production in these crops, together with increased mechanization in the beet and cotton fields, will probably be the growth of a serious unemployment problem.

The present status of the Crystal City Mexicans indicates that comparatively regular employment in seasonal agricultural labor may not provide sufficient income for the adequate support of the workers' families. Such programs as that of the Farm Security Administration help to improve the situation of the migrants to some extent. But their cash incomes are not likely to increase in the near future because the constant flow of sharecroppers and tenant farmers into the ranks of the day laborers has produced severe competition for these highly seasonal jobs. Low incomes among the Mexican migrants will therefore continue, in all probability, until increased industrial production is able to absorb surplus workers from the farm-labor market throughout the country.

Chapter I

CRYSTAL CITY: THE BACKGROUND

CRYSTAL CITY, Tex., has been called the spinach capital of the world. Located in the Winter Garden Area, about 100 miles southwest of San Antonio, this town is the center of a rich, irrigated valley where the climate and soil are particularly well suited for raising winter truck crops. During the past decade the shipping platforms of Zavala County, of which Crystal City is the county seat, have sent to market annually from a quarter to more than half of all carlot shipments of fresh spinach in the country.

The spinach industry in the Winter Garden Area (fig. 1) is a fairly recent development. When the first American settlers arrived, in the 1860's, they found only a dry, low-lying valley covered with sprawling mesquite trees. The first irrigation occurred in 1876, when water was diverted from a small river by a landholding company. During the 1880's artesian water was discovered. There was no widespread interest in irrigation, however, until about 1907 or 1908. At that time the building of a branch line of the Missouri Pacific Railroad through Zavala County provided transportation advantages which made irrigated vegetable farming profitable. The farmers of the Winter Garden thus were able to make use of the water which was available in the rivers, lakes, and artesian wells. So many artesian wells were bored that underground water pressure was greatly reduced, and pumps had to be installed to obtain water from the wells.¹ In spite of this development, however, the growing of onions, spinach, and other truck crops for the winter and early spring market was profitable, and acreage in these crops began to increase. In the winter of 1917-18 about 4 acres of spinach were grown successfully near Crystal City. The following

¹Taylor, Paul S., *Mexican Labor in the United States: Dimmit County, Winter Garden District, South Texas*, University of California Publications in Economics, Vol. 1, Part V, Berkeley: University of California Press, July 1930, pp. 293-320; and Smith, Howard M. and others, *Soil Survey of Zavala County, Texas*, Series 1934, No. 21. U. S. Department of Agriculture, Bureau of Plant Industry, June 1940, pp. 6-7, 33.

Fig. 1 - SELECTED AGRICULTURAL REGIONS, SOUTH TEXAS



-  Irrigated areas
-  Selected agricultural regions (approximate)

year 100 acres were planted, and each succeeding year the acreage increased.² In the 1923-24 season, the first year for which records of railway shipments are available, 913 carlots of spinach were shipped from Crystal City. Two years later 2,555 carlot shipments were sent to market from the town's loading platforms. Onion shipments also increased rapidly in this period, rising from 300 to 650 carlots.³ Onion shipments began to decline sharply about 1930, however, while spinach shipments continued to increase until 1933.

THE MEXICANS AND THE SPINACH INDUSTRY

The history of the Mexicans of Crystal City is in large part the history of spinach growing in the Winter Garden Area. The industry has always depended on Mexican labor. The supply of Mexican workers has been plentiful because Crystal City is less than 50 miles from the Mexican border.

Prior to the development of irrigation the present Winter Garden Area was sparsely populated, and the few Mexicans living there worked principally for cattle and sheep ranchers. One present-day Mexican resident of Crystal City said that when he came to Crystal City in 1914 "they were just colonizing it." There were at that time only a few houses and tents on the site of the town. During the next 15 years widespread irrigation and the resultant increase in the growing of spinach and other vegetables were to create a need for quantities of Mexican labor.

In the early postwar period south Texas growers imported Mexicans in large numbers under a seasonal-contract labor system and opposed all restrictions on Mexican immigration. At the end of the harvest season many of the Mexicans did not return to their country.

Migration of Mexicans to Crystal City reached its peak in 1926. After that time the growers found it unnecessary to import workers from Mexico because there were enough migrants from other parts of Texas to fill their labor needs. By 1930 Crystal City was predominantly a Mexican town in population: 5,166 out of a total of 6,509 persons were classified as members of "other races" (than the white and Negro).⁴

Once they had come to Crystal City, the Mexican workers tended to return year after year because the spinach harvest occurred in the winter when employment was lacking in beets and cotton. The spinach growers were therefore able to obtain a large and stable supply of laborers, who left Crystal City to follow other crops when the spinach harvest was completed.

²Hawthorn, Leslie R., *Spinach Under Irrigation in Texas*, Circular No. 68, Texas Agricultural Experiment Station, College Station, November 1932, p. 3.

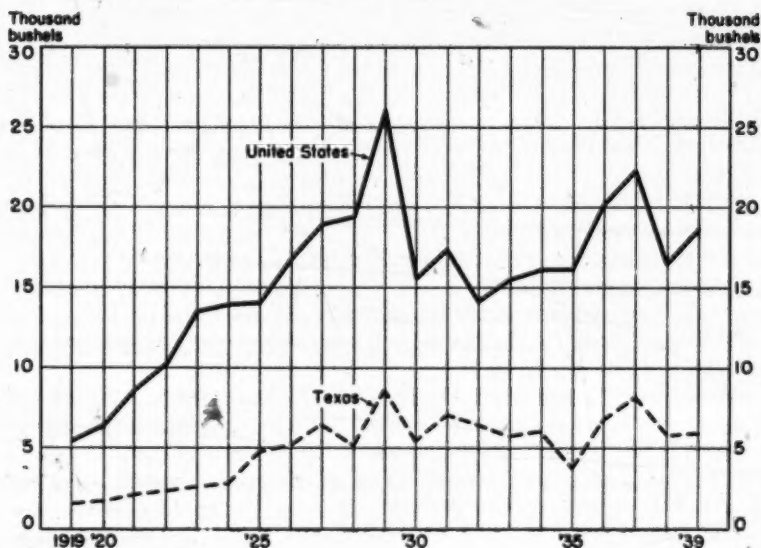
³Data obtained from J. G. Juvenal, Crystal City agent of the Missouri Pacific Railroad, 1939.

⁴The 1930 Census reported only 11 Negroes in Zavala County.

GENERAL TRENDS IN SPINACH PRODUCTION

Spinach consumption in the United States increased steadily from 1919 through 1929. This was part of a general upward trend in the consumption of all types of fresh vegetables, especially in the winter season. It was further stimulated by the publicity given to the high mineral content of spinach. From 1925 on Texas supplied an increasing amount of the Nation's spinach. The State's proportion rose from 22 percent of all United States' production during the years 1919-1924 to an average of 35 percent in the period 1925-1934; but after 1934 the proportion of the Nation's spinach grown in Texas was somewhat lower.⁵ (See fig. 2 and appendix table 1.)

Fig. 2 - SPINACH PRODUCTION IN THOUSANDS OF BUSHELS
UNITED STATES AND TEXAS, 1919-1939



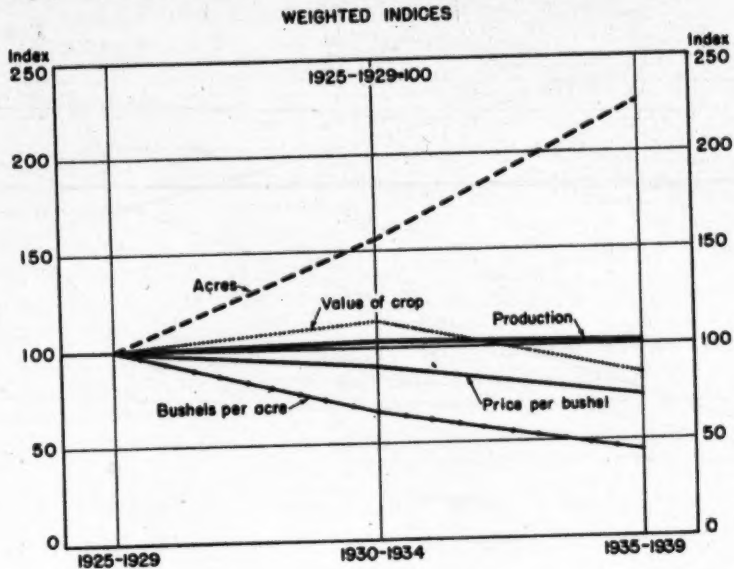
Source: Appendix table 1.

WPA 3383

The increase in Texas spinach growing from 1925 on was principally the result of large-scale plantings in the Winter Garden Area. In 1929, according to the United States Census, Zavala County reported 54 percent of the State's acreage. The large size of the plantings in the Winter Garden Area is shown by the

⁵Agricultural Marketing Service, production reports on spinach for market and for manufacture, 1917-1939, U. S. Department of Agriculture, Washington, D. C.

Fig. 3 - TRENDS IN SPINACH PRODUCTION IN TEXAS, 1925-1939



Source: Appendix table 2.

WPA 3384

fact that in 1929 the average grower in Zavala County had 183 acres of spinach, compared with an average of only about 12 acres among spinach growers in the State as a whole.⁶

From 1930 on the spinach industry was beset by increasing difficulties. The price paid to growers for Texas spinach dropped from a weighted average of 47 cents per bushel during the period 1925-1929 to 42 cents in 1930-1934 and 34 cents in 1935-1937.⁷ (See fig. 3 and appendix table 2.)

The cost of labor, hauling, icing, loading, containers, and other items entailed by the harvest also dropped in Texas, however. Since labor costs were relatively flexible, wages dropped more rapidly than other portions of the cost of production.

From 1935 on the growers also felt the full impact of the "spinach depression." In 1935 the crop was so poor that, in spite of the abnormally high price of Texas spinach that year (58 cents), few growers made much profit. From 1936 through 1939 the average price of Texas spinach stood at 30 or 31 cents

⁶Bureau of the Census, *Fifteenth Census of the United States: 1930, Agriculture*, Vol. II, Part 2, U. S. Department of Commerce, Washington, D. C., pp. 1488, 1507.

⁷Agricultural Marketing Service, *op. cit.*

per bushel, leaving at best only a few cents per bushel above harvesting cost to cover cultivating, planting, irrigation, and various overhead items.⁸

Throughout the depression Texas spinach growers had kept their acreage at a high level in spite of dropping prices; a peak of 58,000 acres was reached in 1937. This expansion of acreage, based on the hope of maintaining profits in spite of low prices, resulted largely from the extension of dry-farmed spinach at the expense of irrigated spinach. After 1937, however, spinach acreage in Texas steadily declined.

As a result of the expansion of spinach acreage in dry-farming areas, the average spinach yield in Texas fell from 286 bushels per acre during the years 1925-1929 to 189 bushels in 1930-1934 and 128 bushels in 1935-1939; a total drop of 55 percent.⁹ The value of the Texas crop was reduced by one-third, or nearly a million dollars a year, in 1935-1939 as compared with 1925-1929. Since the Mexicans were able to cut fewer bushels per day when the stand was sparse, the lowered yield contributed to the decline in earnings of the spinach workers.

ECONOMIC TRENDS IN THE WINTER GARDEN AREA

Mexican spinach workers in Crystal City frequently divide the history of the town into two periods: the "spinach boom" and the "spinach depression." The first period lasted from 1924 through 1932, when the peak in carlot shipments was reached; after 1932 spinach shipments from the region around Crystal City dropped more sharply than those from the State as a whole. The records of railway carlot shipments (which include only fresh spinach shipped to market and exclude the canned product) show that while shipments from Texas in the years 1935-1939 declined 26 percent as compared with the period 1930-1934, shipments from Zavala County declined 45 percent, and those from Crystal City dropped 55 percent. The proportion of all Texas spinach shipments originating in Crystal City dropped from more than half to less than a third.¹⁰ (See fig. 4 and appendix table 3.)

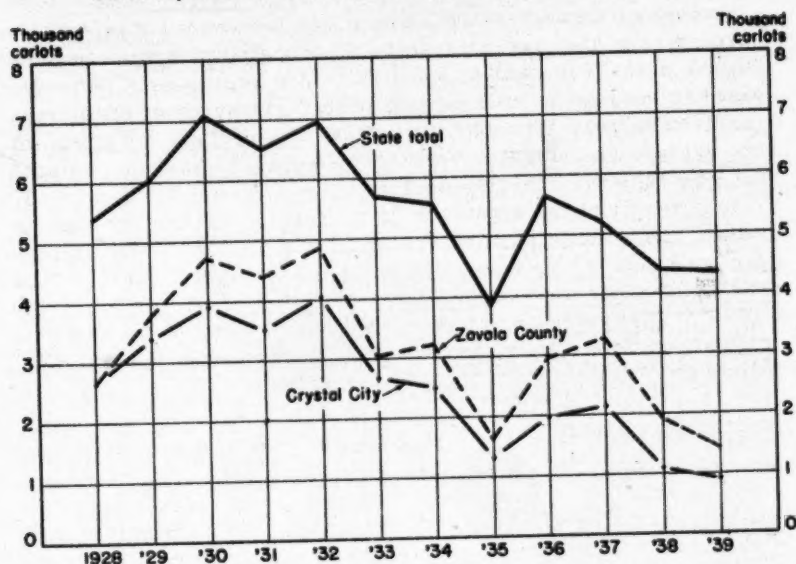
Part of the decrease in carlot shipments of fresh spinach from Zavala County is accounted for by the establishment of a cannery in Crystal City just prior to the sharp decline in shipments in 1935. In the 1938-39 season the cannery was in operation for about 4 months and employed some 30 workers, most

⁸ All background material in this publication which is not supported by appendix tables or documentary references was derived from correspondence and other data now in the files of the Division of Research, Work Projects Administration, Washington, D. C.

⁹ Agricultural Marketing Service, *op. cit.*

¹⁰ Agricultural Marketing Service, reports on carlot shipments of fruits and vegetables in Texas, 1928-1938, U. S. Department of Agriculture, Washington, D. C.

Fig. 4 - CARLOT SHIPMENTS OF SPINACH FROM TEXAS, ZAVALA COUNTY, AND CRYSTAL CITY, 1928-1939



Source: Appendix table 3.

WPA 3308

of whom were Mexicans. It shipped over 100,000 cases of canned spinach in that year, and it was planned to enlarge the cannery in the future. This plant, however, used not more than a tenth to a fifth as much spinach as was shipped to market from Crystal City, and so its operation explains only a fraction of the decline in shipments of fresh spinach.

Acreage and carlot shipments increased, however, in the non-irrigated area near the coast where spinach growing was comparatively insignificant until a few years ago. In the more important spinach-producing counties east of the Winter Garden Area shipments were 68 percent greater in the period 1935-1939 than in 1930-1934. In the Winter Garden Area and adjoining counties carlot shipments decreased by one-third in the same period.

It is interesting to note that most of the drop in spinach production occurred in the Crystal City district and in Dimmit and Webb Counties. Maverick County, Uvalde County, and La Pryor (in Zavala County) increased their production during the 1935-1939 period (table 1). La Pryor, 18 miles north of Crystal City in the central valley of the Winter Garden, became an important shipping point in 1929. Spinach shipments from there reached a peak of 1,122 carloads in 1937 but by 1939 they had

8 • MEXICAN MIGRATORY WORKERS OF SOUTH TEXAS

Table 1.—Trends in Carlot Shipments of Spinach, Winter Garden Area Compared With Selected Spinach-Producing Areas of Texas, 1930-1939¹

Area	Average, 1930-1934	Annual carlots, 1935-1939	Index of shipments, 1935-1939 (1930- 1934 = 100)
Texas total.....	6,309	4,696	74
Winter Garden Area ²	6,700	3,628	54
Zavala County.....	4,080	2,931	56
Crystal City.....	3,380	1,497	45
La Pryor.....	780	744	105
Dimmit County.....	418	43	10
Webb County.....	336	88	17
Maverick County.....	680	1,080	157
Uvalde County.....	43	136	303
Wilson-Garmon Area ³	9	119	1,322
Coastal Bend Area ⁴	371	623	168
Lower Valley Area ⁵	177	196	113

¹Agricultural Marketing Service, reports on carlot shipments of fruits and vegetables in Texas, 1931-1939, U. S. Department of Agriculture, Washington, D. C.

²Includes Zavala, Dimmit, and adjoining counties of Maverick, Webb, Lballe, Frio, and Uvalde.

³Includes Atascosa, Bexar, and Wilson Counties.

⁴Includes Bee, Jim Wells, Live Oak, Reeves, and San Patricio Counties.

⁵Includes Cameron, Hidalgo, and Willacy Counties.

dropped to less than half that amount. Maverick County, on the Rio Grande west of Crystal City, increased its production steadily from 1935 through 1939, reaching 1,556 carlot shipments and surpassing Zavala County in the latter year. The most recent upward trend in this area has been in Uvalde County, where carlot shipments jumped from 8 carlots in 1937 to 94 in 1938 and 507 in 1939.¹¹

REASONS FOR THE DECLINE IN SPINACH PRODUCTION

The decline of spinach growing in the Winter Garden Area and the accompanying decline in employment and income among workers in the spinach industry may be explained in terms of (1) general conditions affecting the industry as a whole and (2) local factors operating in the district around Crystal City.

General Factors

The onset of the depression and the resulting drop in purchasing power in the Nation caused a decrease in the demand for, and a drop in the prices of, vegetables. This trend was probably accentuated in the case of spinach by the fact that the public

¹¹The 1940 population figures for the principal Winter Garden counties (released after the completion of the body of this report) reflect the trends in spinach production shown in table 1. From 1920 to 1930, during the height of the "spinach boom," Zavala County's population increased 233 percent; but from 1930 to 1940 it increased only 12 percent (from 10,349 to 11,603). The population of Crystal City itself dropped 1 percent, from 8,609 to 8,529, during the decade 1930-1940. Near-by Dimmit County also suffered a loss in population. Maverick County, however, showed a gain in 1940 of 65 percent over the 1930 figure. (Bureau of the Census, *Population of the State of Texas: Final Figures, 1940*, Series P-2, No. 46, U. S. Department of Commerce, Washington, D. C., Jan. 11, 1941.)

learned that many other vegetables contained iron and other healthful minerals.

Increased production in certain northern areas near the cities which furnished the largest markets for spinach also tended to affect the Texas growers adversely. For example, the Virginia spinach area near Norfolk, which shipped more carlots of fresh spinach to market than did Texas prior to 1924 and which has consistently held second place since then, increased its shipments by 21 percent during the years 1935-1938 as compared with 1931-1934; Texas shipments declined 23 percent in the same period.¹²

Local Factors

The primary factor in decreasing production of spinach around Crystal City was the growth of a serious weed problem in recent years. Under the one-crop system, which provided ideal growth conditions for weeds that matured at the same time as the spinach plants, jointweed, carrotweed, and other pests multiplied. Since these weeds could be brought under control only by hand weeding and other expensive methods, some growers abandoned spinach as a principal crop.

Irrigation costs were also high in the Winter Garden Area, although this factor was less important than the weed problem. Some water was taken from the Nueces River, but its flow was irregular; late in 1938 the river was so low that spinach acreage along the river had to be reduced considerably. Most of the water for irrigating was pumped from wells, and the cost of electricity for pumping was relatively high. As a result, the cost of water alone in the Winter Garden was \$1 to \$3 per acre, and total growing costs prior to harvest averaged \$10 to \$15 or more per acre.¹³ With a production of 200 bushels per acre this would have been 7 or 8 cents per bushel, or enough to eat up most of the difference between harvesting cost and market price in the lean years since 1935.

More favorable conditions in other places contributed to the development of successful competition by spinach growers outside Zavala County with growers in the county. The weed problem was less troublesome in the more recently irrigated spinach areas of the Winter Garden, such as Maverick County, and the Coastal Bend Area of Texas than it was in Zavala County. The fact that most spinach plantings outside the Winter Garden Area do not have to be irrigated also helped growers in

¹² Agricultural Marketing Service, reports on carlot shipments of fruits and vegetables in the United States, 1918-1938, U. S. Department of Agriculture, Washington, D. C.

¹³ Hawthorn, *op.cit.*, p. 10, and correspondence in the files of the Division of Research, Work Projects Administration, Washington, D. C.

other parts of Texas and the United States to compete successfully with those in the Winter Garden. Therefore, with the drop in prices since 1930, and especially since 1935, some irrigated land was taken out of production in Zavala, Dimmit, and Webb Counties even while new areas of spinach were being seeded in other Texas counties and in other States where costs of production were lower than in the Winter Garden Area.

There are certain other incidental factors which have depressed the spinach industry in the Crystal City district. In the 1935-36 season an epidemic of curly top reduced the crop considerably. Blue mold, a fungus growth which recurs sporadically in years when the weather is unfavorable, also injures the crop and causes a high proportion of waste. Heavy frosts have occasionally had an adverse effect. And finally, intensive cultivation of this single crop over a period of several years has caused the soil to become somewhat depleted in some places. The net effect of all these conditions has been the cutting of Crystal City spinach production—and employment for spinach workers—to less than a third of the peak level reached in 1932.

THE MEXICANS OF CRYSTAL CITY

Crystal City is an excellent example of a town which has become a winter concentration point for Mexican migratory workers. It differs from other south Texas agricultural centers only in that its population is relatively stable, the great majority of its Mexican families having returned each winter for many years to work in the spinach fields.

The growth of Crystal City as a migratory labor reservoir has been comparatively recent. More than three-fourths of the heads of families interviewed in connection with the present survey came to Crystal City after 1920.¹⁴ Most of these—almost 60 percent—arrived there during the period from 1923 through 1931, when spinach growing was still expanding. Over 80 percent of the Mexicans came to Crystal City to find work, 44 percent of them specifically to work in spinach.

Crystal City was apparently a secondary migration point. Only a fifth of the family heads came directly from Mexico; 77 percent had lived in some other part of Texas before they moved to the spinach center.¹⁵ About 85 percent said that their families had originally come from one of the states of northeastern Mexico; 60 percent of all families had originated in Coahuila, the nearest border state, which is less than 50 miles away from Crystal City. About seven-eighths of the heads of families gave unskilled labor as their usual occupation prior

¹⁴ Only 36 percent of the San Antonio Mexicans came to that city after 1920. (See footnote 8, p. II.)

¹⁵ In San Antonio 41 percent had come directly from Mexico.

to taking up spinach work. Nearly all of these had been agricultural workers.

Large families were the rule in Crystal City; the average¹⁶ family included 5.5 persons at the end of 1938. More than four-fifths of all families were of the "normal" type, with husband and wife, with or without children.¹⁷ More than seven-eighths of the families had one or more members who were citizens; most of the children were American-born.

The families studied had an average of 3.1 workers each (table 2).¹⁸ The number of workers increased in striking

Table 2.—Size of Family and Average¹ Number of Workers per Family Among Crystal City Mexicans, 1938

Size of family	Number of families	Average number of workers
All families.....	300	3.1
1 person.....	1	†
2 persons.....	25	1.7
3 persons.....	39	2.0
4 persons.....	45	2.6
5 persons.....	41	2.5
6 persons.....	43	3.6
7 persons.....	35	3.8
8 persons.....	22	4.5
9 persons or more.....	49	(2)

¹ Average not computed for fewer than 10 cases.

† Median.

² More than 6 workers. Exact median not ascertainable.

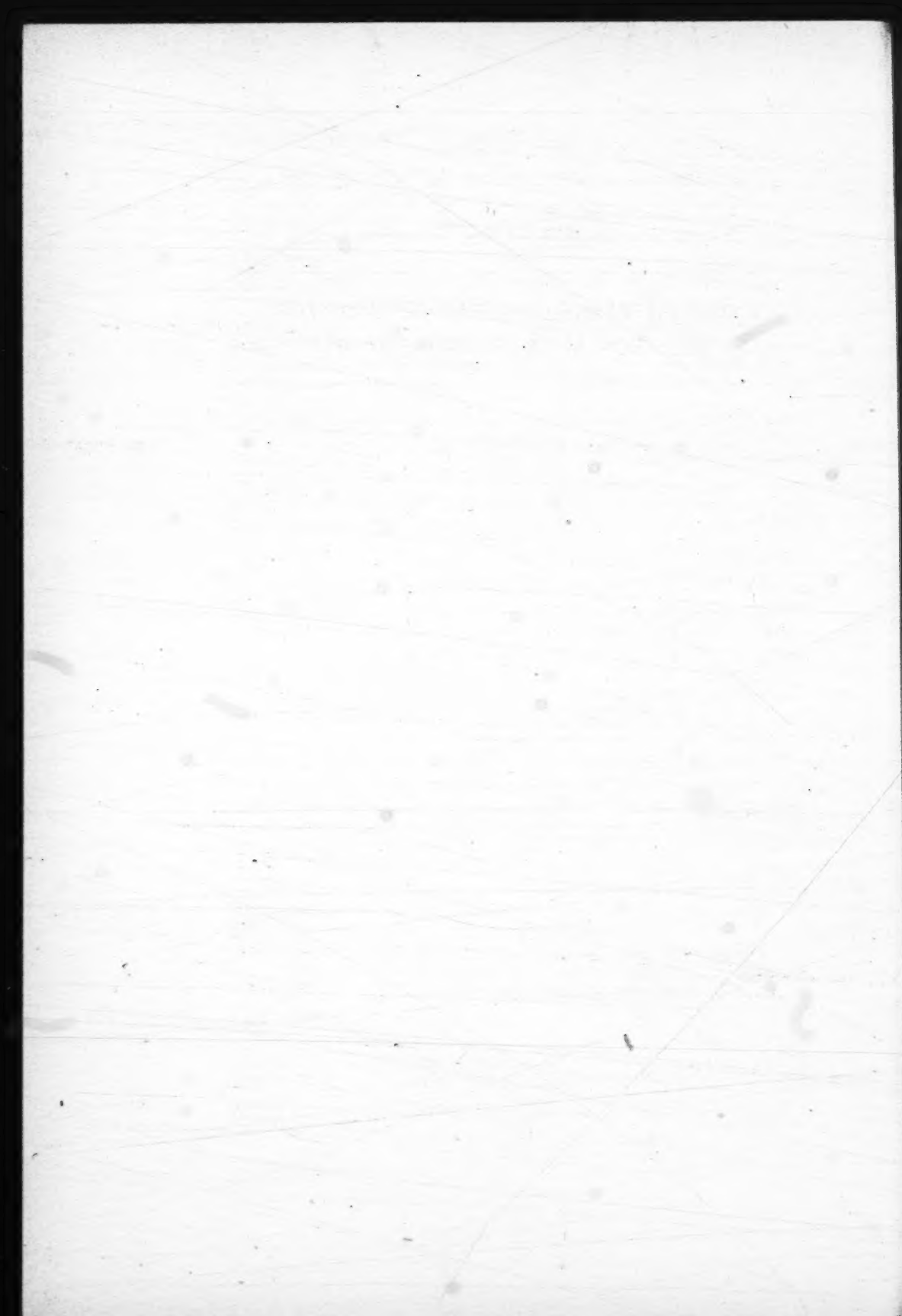
progression with size of family. Families of 9 persons or more averaged more than 5 workers; the largest family, with 18 persons, had 12 workers.

These are the Mexicans who work in the spinach industry of Crystal City and the Winter Garden Area. They consider this south Texas town their permanent home. Year after year they return to cut, haul, ice, and load spinach for the winter market. In the last few years their earnings in spinach work have dropped because of low wages and decreased production around Crystal City, and a few have moved to other places. But most of them have continued to spend their winters in Zavala County in order to get what work they can. They depend mainly on their work in summer crops for their livelihood and draw on their beet and cotton earnings in order to live while they are working in the spinach crop during the winter.

¹⁶ The term "average" means median hereafter in this report unless otherwise specified.

¹⁷ Among the San Antonio Mexican families averaged only 4.6 persons. Only 57 percent of the families there were of the normal type; 31 percent were "broken" families.

¹⁸ This compares with an average of 2.0 workers among the San Antonio pecan shellers.



Chapter II

WORK PATTERNS AND EARNINGS OF THE MEXICAN MIGRATORY WORKERS

THE MEXICANS of Crystal City are outstanding among migratory workers in one respect: because of their winter work in the spinach harvest they have been able to dovetail work in various crops so as to reduce unemployment to a minimum. In spite of low wages this comparative regularity of employment has enabled them to get along even during the depression years with very little public assistance.

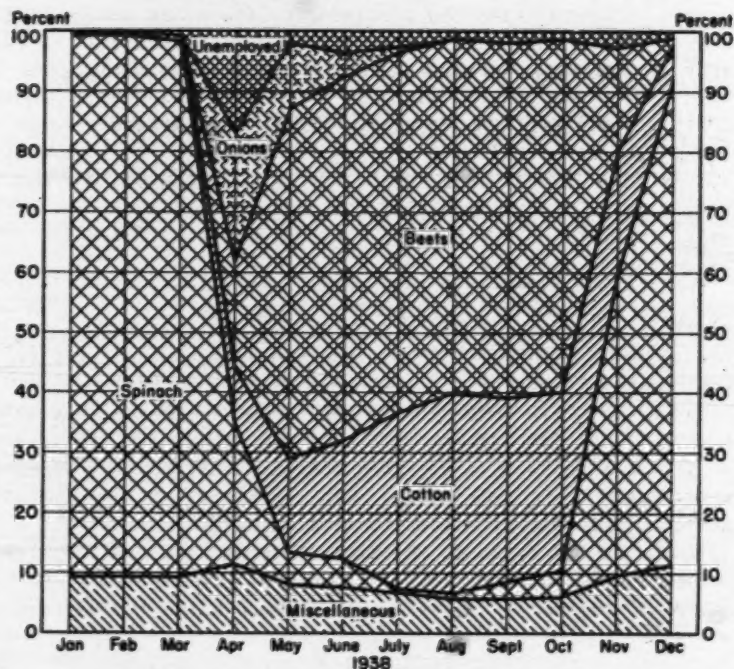
The Crystal City workers have been more fortunate than most groups of migratory laborers in securing winter employment. In the Nation as a whole there are not enough farm jobs to go around during the winter season, and only a minority of workers can hope to find jobs even in such States as California, Texas, and Florida. The Mexicans of the Winter Garden Area are therefore representative only of those seasonal workers who achieve some measure of regularity in employment through extensive migration each year.

PREDOMINANT PATTERNS OF ACTIVITY

In 1938 nearly all (92 percent) of the Mexican families of Crystal City worked in the spinach harvest at some time during the periods from January 1 through March and from late November or early December until the year's end. (See fig. 5 and appendix table 4.) Soon after the season was over, however, most of the spinach workers traveled northward or eastward to follow one of two principal work patterns while they were absent from Crystal City.

(1) Of the 300 families studied in Crystal City, 185 migrated to the beet fields of the North Central and Plains States in 1938. A majority of these—140 families—went straight from spinach to beet work. (The sugar-beet season, which lasts from late April or early May until about the end of November, coincides almost exactly with the slack work period in Crystal City.) Another 45 families—a quarter of the number who went to the beet fields—worked for a short period in the onion harvest

Fig. 5 - DISTRIBUTION OF ACTIVITIES OF 300 CRYSTAL CITY
MEXICAN FAMILIES, BY MONTH
January - December 1938



Source: Appendix table 4.

WPA 3400

before traveling northward to the beet fields. This group was composed mainly of families who migrated to Montana, Wyoming, and other western Plains States where the beet season starts a few weeks later than in the Midwestern States.

(2) A third of the Crystal City families that were studied—an even 100—worked in cotton at some time during 1938. About half of these were able to get work as early as April or May chopping (thinning) and hoeing cotton in the area around Corpus Christi. Another 41 families—4 out of every 10 cotton-picking families—worked for a time in the onion fields before starting to pick cotton. Some of these worked through April and May, and a few into June and July, when the onion harvest was completed. Families who could not get work chopping cotton or harvesting onions were unemployed most of the time until the cotton picking started on the Gulf coast in late June or early July. From that time on nearly all families employed in the cotton harvest worked fairly steadily until October or November.

The beet and cotton workers usually traveled in family units, although occasionally a member who had steady work in Crystal City stayed at home while the rest of the family worked in the cotton or beet fields. In three cases only, one member of a family worked in beets while the remainder followed the cotton crop.

Many of the families who worked in cotton and beets in 1938 also had members working at various nonagricultural jobs in Crystal City during the winter. A few operated stores in the Mexican section of the town but closed them in order to go to the cotton or beet fields when over nine-tenths of the Mexican colony left Crystal City in the spring. Others did automobile repair work during the winter, or engaged in domestic or other unskilled types of work which they were glad to leave for farm labor in the spring.

The net result of this pattern of employment was that during 11 months of 1938 less than 4 percent of the families studied were totally unemployed more than half the time in any given month. The exception was in April, after the spinach crop was gathered and before cotton and beet work were in full sway, when 17 percent of the families were totally unemployed during most of the month. In each of the 4 months of the spinach harvest, from December through March, only 1 percent or less of the families were entirely without work.

It should be realized, however, that unemployment is a more serious problem among the Mexican migrants when considered in terms of individual workers. Only 25 out of a total of 997 workers—1 in 40—had no unemployment in 1938. Almost 1 in 3 had been unemployed 2 months or more and 1 in 8 for more than half of the year. This irregularity of individual employment is partly concealed in the figures for family unemployment by months.

In spite of the small amount of total family unemployment among the Crystal City Mexicans, then, individual unemployment and low wage standards had a depressing effect on family incomes. As a result, the average migratory family—and 96 percent of the Crystal City group were migratory—found it very difficult to pay traveling expenses and still have enough left on which to live without hardship during the winter.

The basic causes of the conditions existing among the Mexicans are the wages and working conditions which prevail in the various agricultural pursuits which they follow. Some analysis of economic conditions in each of these fields is therefore a prerequisite to an understanding of the problems of Mexican migratory workers.

SPINACH WORK

There are several reasons why the Mexicans of Crystal City return to that locality year after year in spite of the decline

in spinach production and in wages in the Winter Garden Area: spinach harvest work begins just after the close of the sugar-beet and cotton seasons; it provides some income during the time of year when employment is slack; and it gives the Mexicans a chance to live in the Southwest, where the climate is warm and where they can live with their own people during the winter.

Work in the spinach crop is highly seasonal. Prior to harvest time little hand labor is needed in the spinach fields because tractors and field machinery are widely used. In the summer, when the weather is too hot for many vegetable crops, the land is cultivated to prevent the growth of weeds. Late in August or early in September the first plantings are made. The seed, although sown with a grain drill, is in effect broadcast by means of an attachment to the drill. The borders, or ridges which separate the beds, are usually built up by the use of a disc cultivator. From planting until harvest—60 to 90 days, depending on the weather—little labor is required except for controlling the flow of water through the fields. No weeding is done, as a rule. Planting continues periodically until the end of the year, so that the harvest is almost continuous during the winter season. The industry depends heavily upon the large and mobile supply of labor furnished by the Mexicans during this period. During the first 3 months of 1938, as noted above, more than 9 out of every 10 Crystal City families found their principal employment in spinach.

At least nine-tenths of the spinach laborers are "cutters" who work on their knees in the fields, clipping the mature spinach plants and sorting out defective leaves and weeds. The cutters, although they do the most fatiguing type of work, are the lowest paid of the spinach workers.

Earnings From Spinach Work

An adult cutter, under favorable conditions, can harvest 15 to 20 bushels of spinach per day. In recent years, however, "favorable conditions" have become comparatively rare: decreasing yield per acre, irregularity of employment, and the setting of higher standards of quality by the growers have made it difficult for the cutters, paid at the rate of 5 cents per bushel, to average much more than 50 cents per day.

During the calendar year 1938 the average weekly earnings of Crystal City workers in the spinach harvest amounted to \$3.13 per person in cash and kind.¹ (See appendix table 5.) One spinach job in six paid \$5 or more per week, and one in twenty-two paid \$10 or more. A quarter of the jobs paid less than \$2.60 per week to each worker.

¹The year covered by this survey, 1938, included most of the 1937-38 spinach season (early part of 1938) and the first few weeks of the 1938-39 season (late fall and early winter of 1938 through December 31).



Farm Security Administration (Lee).

Cutting Spinach.



Farm Security Administration (Lee).

Topping Beets.

This weekly average included not only "cutting" but also the better-paid types of work, such as loading spinach onto trucks, hauling it to the loading platforms, unloading it, icing it, loading it into freight cars, and icing and sealing the cars. Several who worked on the loading platforms said that they earned \$1 to \$1.50 per day when work was available. In one family five members worked in the local spinach cannery and each earned an average of about \$3.60 per week.

The great majority of workers, however, were employed in cutting spinach, and they reported earnings much lower than this. Many cutters averaged only \$2 per week apiece. These earnings show the effect of irregular employment; some of the Mexicans were unable to get steady work even during the peak of the 1938-39 season. Many averaged 4 days of work or less per week through most of the season; this accounts for the fact that the workers as a group averaged only 40 hours per week in spinach, which was far below the average for past years.

Less than one-tenth of the spinach workers reported spinach as their chief source of income in 1938. The average cash income of Crystal City families from spinach work was \$124. Almost 4 out of every 10 families earned less than \$100. Figuring an average of 2.5 workers per family in spinach work during the harvest season (a conservative estimate), this was less than \$50 per worker for a season averaging 3 to 4 months in length (table 3).

Table 3.—Cash income of Crystal City Mexican families from spinach work in 1938

Cash income from spinach work	Number of families
Total	277
	Percent distribution
Total	100
Less than \$20	10
\$20-\$50	27
\$50-\$100	34
\$100-\$150	19
\$150-\$200	12
\$200-\$250	6
\$250 or more	2

Only 17 families reported any income in kind from spinach work, and this was assigned an average value of \$16 for the season. It consisted mainly of free housing furnished in Crystal City by some labor contractors to their workers.

Labor Policies and Working Conditions

Prior to the depression some of the growers sent directly to Mexico for workers each season. Others encouraged Mexicans from parts of Texas outside the Winter Garden Area to make their permanent winter homes in Crystal City.

For the past decade the spinach growers have had an abundant labor supply and have almost stopped recruiting workers outside the district. Occasionally, however, they have shown a desire to revert to the policy of bringing in outside labor. In 1936, for example, the Texas Farm Placement Service in San Antonio received an order from a contractor in La Pryor for 100 spinach cutters, with free transportation to La Pryor to be furnished by the contractor. An investigation showed that there was no shortage of local labor in La Pryor and, further, that there were hundreds of spinach cutters available around Crystal City, 18 miles away, because of a slack period in the harvest there. Other workers were available at Eagle Pass, which is only 50 miles from La Pryor, while San Antonio is 130 miles away. The order was not filled. If workers had been sent in from San Antonio, the labor market in the Winter Garden would have been glutted to an even greater extent than it was already.²

Both growers and contractors desire to see the Mexican colony in Crystal City maintained at its present size, in spite of increasing slackness of employment during the spinach season, as insurance against a possible future labor shortage. They voice some uneasiness, however, on two counts. An increasing need for public assistance has been felt since 1935, and there has been some talk of labor organization among the Mexicans. At the time of the present survey, however, no labor organization of consequence had appeared on the local scene.

Most of Zavala County's spinach crop is produced by large growers who plant from 500 to 4,500 acres each. Although a field of spinach can sometimes be left in the field for a week or two during cool weather and harvested when market prices are most favorable, when the weather is warm it must be harvested within a few days of the time the crop is mature. Since large numbers of workers are needed by individual growers for short periods when the harvest is in full swing, the growers find it desirable to deal with Mexican labor contractors to obtain their labor force.

If a grower receives an order for several carloads of spinach, he calls his contractor or contractors, who receive a flat rate per bushel to cover cutting the spinach and hauling it to the loading platform. If only a few carloads are ordered on a given day, the cutters may work only a few hours, while on other days they may work from early morning until darkness sets in.

Most of the spinach workers live in Crystal City and are transported to the fields each morning in the labor contractors' trucks. Some of them travel as far as La Pryor, returning at

²Farm Placement Service, *Survey of Farm Placement in Texas, 1936 and 1937*, Texas State Employment Service, Austin, 1936, pp. 31-32.

night to Crystal City. One company, however, maintains several camps at strategic points on its property. Water and fuel are furnished to the residents by the company. Money and groceries are advanced to the families in some cases when work is slack because of inclement weather.

In recent years the Texas Farm Placement Service has operated as a clearing house for spinach contractors and workers in Zavala County. The Crystal City office of this agency made 7,756 placements during the 1937-38 season.³ These were distributed through the season as follows:

December.....	550
January.....	2,823
February.....	2,497
March.....	1,886

Children as young as 10 years of age work in the spinach fields with their parents. In 1938 about 11 percent of all spinach workers were under 14 years of age. The proportion of child labor in spinach is much higher than in beets but lower than in cotton. The fact that the entire spinach harvest occurs during the school year tends to lessen the extent of child labor in this crop.

SUGAR-BEET WORK

Work in sugar beets is the most important single source of income for a majority of the Mexican families in Crystal City. Early in April each year the first of the beet workers pack their cars with blankets, dishes, clothes, and children and head for the beet fields. From that time until late in May a continual stream of workers flows northward.

Seasonality and Location of Jobs

Beet work is highly seasonal, although it provides continuous employment for a longer period of the year than any other important crop. The hand work done by the Mexicans falls into three main operations, two of which require long working hours while they last. The operations are as follows:

(1) Blocking and thinning. Blocking consists of chopping out overcrowded plants from the rows of beets so as to leave a tuft of beets every 10 or 12 inches. Thinning consists of pulling out by hand all but the strongest plant in each tuft. This work is done in the late spring, usually in May and June, under great pressure of time.

(2) Hoeing. Usually one or two hoeings are required during the summer to keep the soil loose and free from weeds. There is less hurry about this operation.

³ Annual Report of the Farm Placement Service, Texas, 1938, Texas State Employment Service, Austin, 1939, p. 8.



(3) Pulling and topping. This is the harvesting process, usually involving pulling up the beets after they have been loosened by a horse-drawn lifter, cutting off the tops with a long knife, and tossing the roots into piles. This is done in October and early November as a rule.⁴

The work is contracted for on an acreage basis. Payments are made after each major operation, according to a standard rate per acre, and a bonus is usually paid if production per acre goes above a certain level.

The average beet job⁵ lasts between 6 and 7 months—28 weeks in the case of the Crystal City workers in 1938—although the work itself is somewhat intermittent in the middle of the season.

All but a few of the Crystal City beet workers left for the beet fields in April and May. The largest group left in April, going principally to the midwestern sugar area; 41 percent of all beet families went to Michigan, 17 percent to Minnesota, and smaller numbers to Iowa, Wisconsin, Ohio, Illinois, and Nebraska (fig. 6). Last to leave were those who went to Montana (12 percent), Wyoming (11 percent), and North Dakota; in this area the beet season is about a month later than in the Midwest. Until recently a considerable number of Texas Mexicans worked in Colorado, the largest beet-sugar-producing State in the country, but only two Crystal City families went there in 1938.

Almost half of the beet workers traveled in their own cars, a quarter paid for their passage on other workers' trucks, a fifth traveled with labor contractors, and the rest rode with friends or relatives. The fare charged by truck drivers and contractors ranged from \$10 upward per family, according to the beet workers; the usual rate was \$10 per adult and \$5 per child. One family of 12 paid \$87.50 for a one-way passage to Iowa. Under this type of arrangement from 20 to 45 persons or more were sometimes crowded into a single truck, and the trip north was made in 40 to 50 hours without stopping except for gasoline and oil. At the end of the season several families who had gone north in trucks bought used cars in which to return to Texas.

Earnings From Beet Work

Weekly earnings reported by individual beet workers in the Crystal City group averaged \$6.33 for 49 hours of work per week. (See appendix table 5.) Working hours were much longer than

⁴Abbott, Lewis, *Report for the Committee on Labor Conditions in the Growing of Sugar Beets*, Washington, D. C., March 1934, p. 28.

⁵The term "job" is used throughout this report to mean continuous employment of one or more members of a family at one type of work in one locality. This definition was necessary because Mexican families usually work and draw their pay as a unit and because (in cotton and spinach) the workers often change employers every few days in following the harvest. A detailed work history covering all employers and employees separately would have been impossible to obtain in most cases.

this during the periods of peak activity in the spring and fall. Earnings in beet work amounted to 13 cents an hour, or just over \$1 a day.

Almost 28 percent of the beet workers earned less than \$5 per week during the season, while 10 percent averaged more than \$10 per week.⁶ These figures include both cash and kind; they take into account all periods when beet work was done but exclude periods of employment at other jobs during slack times in the middle of the beet season.

The average cash earnings of Crystal City Mexicans from work in beets amounted to \$400 per family, or \$135 for each individual worker in 1938. One family in eight earned less than \$200 from beet work (table 4). Income in kind (covering such items as

Table 4.—Cash income of Crystal City Mexican Families From Beet Work in 1938

Cash income from beet work	Number of families
Total	1,200
	Percent distribution
Total	100
Less than \$200	15
\$200-\$250	23
\$250-\$300	14
\$300-\$350	16
\$350-\$400	7
\$400-\$450	12
\$450-\$500	6
\$500 or more	9

¹Total includes 8 beet workers from families that derived their incomes principally from cotton.

rent, wood, and water) received while doing beet work brought the average earnings from this source up to a total of \$439 per family. The average size of family among the beet workers was 5.6 persons.

During the 1920's beet work was much more profitable than it has been in recent years. In 1924 three studies in Colorado showed average incomes of \$782 per family from beet work. In 1933, however, the average income from sugar beets among Colorado field workers was \$78 per individual, or \$312 for a family containing four workers.⁷ In 1935 the earnings of 374 families of beet workers in Wyoming, Montana, Minnesota, and Michigan averaged \$340, with almost a third earning less than \$200.⁸ Thus, the

⁶The beet workers among the San Antonio Mexicans reported average individual earnings of only \$4.00 per week at beet work in 1938. There were only 22 families in the San Antonio group who followed this type of work, however, and the Crystal City workers were on the whole a more experienced group.

⁷Abbott, *op. cit.*, p. 8.

⁸Johnson, Elizabeth S., *Welfare of Families of Sugar-Beet Laborers*, Bureau Publication No. 247, U. S. Department of Labor, Children's Bureau, Washington, D. C., 1939, p. 4.

1938 earnings as reported by Crystal City Mexicans indicate a somewhat higher income level than that which prevailed in 1933 or 1935 but a much lower level than that of 1924.

The Bureau of Home Economics of the United States Department of Agriculture in 1933 prepared a minimum cash budget for a family of Mexican beet workers consisting of six persons. The total estimated as necessary was \$565 per year, allowing nothing for rent and only \$1.80 for recreation.⁹ Since that time prices have risen, and the minimum income requirement for a similar budget would consequently be somewhat higher. More than half of the 175 Crystal City families whose principal source of income in 1938 was sugar-beet work had cash incomes from all sources totaling less than the minimum cash budget of the Bureau of Home Economics.

Some efforts have been made to organize the beet workers into unions but these have been for the most part ineffective. Union organization has been most widespread in the Rocky Mountain beet area, notably in Colorado and Wyoming. The United Cannery, Agricultural, Packing and Allied Workers of America (CIO) has strong locals with several thousand members in these States. The union has had difficulty, however, in persuading the processors and growers to enter negotiations regarding wages and working conditions.¹⁰

Government Regulation of the Sugar-Beet Industry

Since 1934 wage levels in beet labor have been set each year by the Federal Government. Without such control, earnings of beet workers would undoubtedly be much lower than they are today.

During the depression a protective tariff on sugar had stimulated domestic production to a point where the price structure was threatened with collapse. From 1929 to 1933 sugar consumption decreased, but beet-sugar production actually increased by 51 percent, and prices and wages in the industry fell sharply. To remedy this situation, the Jones-Costigan Act was passed in 1934, placing sugar on the list of "basic agricultural commodities" covered by the Agricultural Adjustment Act of 1933. The production-control agreements signed under the Jones-Costigan Act included the first uniform provisions for regulating child labor and wage payments to beet workers. This legislation expired in 1937 and was replaced by the Sugar Act of the same year, which wrote into the law labor provisions similar to those which had been incorporated in the growers' contracts under the earlier act.

⁹Abbott, *op. cit.*, appendix II, p. 27.

¹⁰Quinn, Walter, *The Conditions of Sugar Beet Workers in 1937*, unpublished ms., Division of Research, Statistics and Records, Works Progress Administration, Washington, D. C., 1938.

Under the 1937 law payments were made to growers who agreed to comply with certain soil-conservation policies, to limit acreage, and to observe labor standards set by the law. These standards prohibited children under 14 years of age from working in the fields, limited working hours of children 14 to 16 years to 8 a day, and required the payment in full of wage rates set by the Secretary of Agriculture after due notice and opportunity for public hearings.¹¹ The various regulatory provisions were embodied in two types of written contracts used throughout most of the industry: those between the beet-sugar factories and the growers, setting prices and acreage and giving the companies the right to supervise the growing of the beets and the time of harvest; and those between the growers and their workers.

Table 5.—Basic Wage Rates per Acre for Hand Labor in Sugar-Beet Fields in Selected Areas, 1925-1939¹

Area	Wage rates per acre				
	1925	1926	1927	1928	1929
Montana ² and northern Wyoming-----	\$21.50	\$21.50	\$23.00	\$24.30	\$25.10
Colorado and Nebraska-----	19.80	19.80	20.80	22.80	21.60
Michigan and Ohio ³ -----	19.00	17.20	18.00	18.00	18.00
Minnesota-----	15.00	16.00	18.00	18.00	17.40

¹ Data from Liss, Samuel, *Protection of Sugar Beet Field Workers Under the Federal Sugar Control Acts of 1934 and 1937*, unpublished ms., U. S. Department of Agriculture, Farm Security Administration, Washington, D. C., 1939.

² Data for 1925 through 1926 include only southern Montana; 1928, only southern and eastern Montana.

³ Data for 1925 through 1927 include only northern Colorado and western Nebraska.

⁴ Data for 1925 through 1927 include only southern Michigan.

⁵ Data for 1925 through 1927 include only southern Minnesota.

The effect of this system of Federal control was to reverse the downward trend in wage rates which had prevailed for several years. In Colorado the rate paid per acre had dropped from an average of \$33.71 in 1920 and \$23.72 in 1924 to \$12.37 in 1933.¹² In the United States as a whole the average rate per acre fell from \$23 in 1921-1923 to \$14 in 1933.¹³ When the Jones-Costigan Act first became operative in 1935, the rates set ranged from \$15 in Minnesota to \$21.50 in Montana and northern Wyoming. Under the Sugar Act of 1937 the rates rose still further (table 5).¹⁴

It is estimated that an experienced man can work 10 acres of beets per season, a woman 7 acres, and children smaller amounts.¹⁵

¹¹ Liss, Samuel, *Protection of Sugar Beet Field Workers Under the Federal Sugar Control Acts of 1934 and 1937*, unpublished ms., U. S. Department of Agriculture, Farm Security Administration, Washington, D. C., 1939.

¹² Abbott, op. cit., p. 5.

¹³ Ham, William T., "Sugar Beet Field Labor Under the AAA," *Journal of Farm Economics*, May 1937, p. 646.

¹⁴ Liss, op. cit.

¹⁵ Taylor, Paul S., *Mexican Labor in the United States: Valley of the South Platte, Colorado*, University of California Publications in Economics, Vol. 6, No. 2, Berkeley: University of California Press, 1929, p. 146.

The average Crystal City family, with just under three workers, contracted for approximately 20 acres of beets in 1938.

Labor Policies and Working Conditions

Growers of sugar beets, like Texas spinach growers, wish a labor supply large enough to avoid the danger of shortages during harvest seasons. Mexicans are the great bulk of the workers in the beet fields, although many German-Russians are still found in Michigan, Nebraska, and other States. The Mexicans are encouraged to return year after year to the same area and the same grower. This makes it unnecessary for the growers to advertise for labor and lends a degree of stability to sugar-beet work.

One device for insuring the return of Mexican workers is to furnish financial aid to them at the beginning of the season. Several Crystal City beet workers said that their expenses on the trip northward were paid by the sugar companies and the fare deducted from their checks later on.

Wages are higher in sugar-beet work than in cotton and spinach work. As a result, in recent years an increasing number of Mexicans have gone to the beet fields to work. In some cases this trend has resulted in hardships among the Mexicans who have been employed in beets for several years. Several families who had worked in the northern Plains States reported that so many migrants were looking for work that the acreage allotted to each family in 1938 was cut to a low level. Where this occurred there was not enough work to keep adult members of the family busy. Some of these families expressed the intention of going north a month earlier the following year in order to get "plenty of acres."

Several Montana beet workers said that a fair amount of acreage had been allotted to them at the beginning of the season but that more workers had arrived during the harvesting season and their acreage had then been cut considerably. The motive for such policies, considered unfair by the workers, is the desire of the growers and processors to harvest the crop as rapidly as possible so that the sugar content of the beets will be at its peak when they are taken to the factories.

A considerable minority of beet workers still work under a labor contracting system by which a Mexican agent undertakes to supply labor to one or more growers. He gets several families to sign contracts with these growers. In some cases he transports the workers to the fields in his truck, as noted above, usually at their own expense but sometimes at the expense of the processing companies. The contractors are not allowed by the sugar companies to let their workers leave the sugar-beet farms to work elsewhere during the busy season. In slack periods, however, the companies permit the workers to take outside jobs.

Beet workers sometimes earn as much as \$10 per week during the time between beet operations by picking tomatoes, cucumbers, and other truck crops.

Multiworker families are preferred to small family groups by the beet growers. Labor contractors try to select families of four workers or more because the cost per worker of transporting and housing such families is comparatively low. Families with only one worker do not usually go to the beet fields because the cost of transportation eats up most of their earnings.

Child labor was once very prevalent in the sugar-beet fields. In 1920, among Michigan beet workers, over two-thirds of all children aged 6 to 16 worked in the fields. Most of them had started doing field labor before they were 10.¹⁶ In 1922, 800 beet workers out of 2,247 studied, or 36 percent, were under 16.¹⁷ By 1933 only 13 percent of the country's beet workers were under 16.¹⁸ Since that time the provisions of the two Federal sugar-control acts and the stricter enforcement of school attendance regulations for children under 14 in Michigan and other States have combined to effect a further decrease in child labor. In 1938 only 2 percent of the beet workers in the Crystal City group were under 14, while 15 percent were from 14 to 18 years of age.

Living conditions among the beet workers leave much to be desired. Growers are required to provide housing for their workers without charge, but the houses usually consist of one- or two-room shacks without conveniences. Families ranging in size from 2 to 12 persons or more live in these houses. The average amount of income in kind was estimated by the beet workers to be only \$6 per month in 1938. This included water, wood, and such other items as may have been supplied in addition to housing. The Crystal City Mexicans, however, find both wages and living conditions much better in beets than in cotton or other work available to them. They also enjoy the relative lack of racial discrimination in the North.

COTTON WORK

In normal years about one-fourth of the Nation's cotton is grown in Texas. In 1938 Texas produced 3,125,000 bales of a total of 12,008,000 bales raised in the United States.¹⁹ Cotton accounted for 54.9 percent of the State's cultivated acreage

¹⁶ Children's Bureau, *Child Labor and the Work of Mothers in the Beet Fields of Colorado and Michigan*, Bureau Publication No. 115, U. S. Department of Labor, Washington, D. C., 1925, p. 62.

¹⁷ Armentrout, W. W. and others, *Child Labor in the Sugar Beet Fields of Michigan*, Publication No. 310, National Child Labor Committee, New York, 1925, p. 13.

¹⁸ *Ibid.*, op. cit., p. 644.

¹⁹ Data from the Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C.

in 1937. Mexican labor is used for most of the seasonal work in the cotton crop; it is estimated that more than three-fourths of all migratory workers within the State of Texas are Mexicans.²⁰

Cotton is second in importance only to beets as a source of summer employment among the Mexicans of Crystal City. In 1938, 100 families spent some time in chopping or picking cotton, and for 87 of these families cotton was the chief source of income. All work in cotton involved migration, since practically no cotton is grown in the area around Crystal City. (See fig. 7.)

Seasonality and Location of Jobs

The cotton season starts in April in the Coastal Bend Area around Corpus Christi, and a few Mexicans go there to chop cotton at that time. Less than half of the Crystal City cotton workers found employment in this type of work. Most of the others went to the cotton fields of the Coastal Bend Area in late June or early July, when the picking season started. Many then migrated north and west from the Coastal Bend Area as the crop matured in the higher, cooler regions, reaching northwest Texas or the El Paso district in October or November and often working until late in December. None of the Crystal City families went outside of Texas to pick cotton in 1938. (See fig. 8.)

A ready means of transportation is essential for cotton workers, since they must frequently be on the move. Three out of every five Crystal City families following the cotton crop had their own cars, usually of ancient vintage. Of the remaining two families one rode with friends or relatives and the other paid fare on a truck or traveled with a labor contractor. Cotton workers thus own their own cars in a higher proportion of cases than do beet workers.

Earnings From Cotton Work

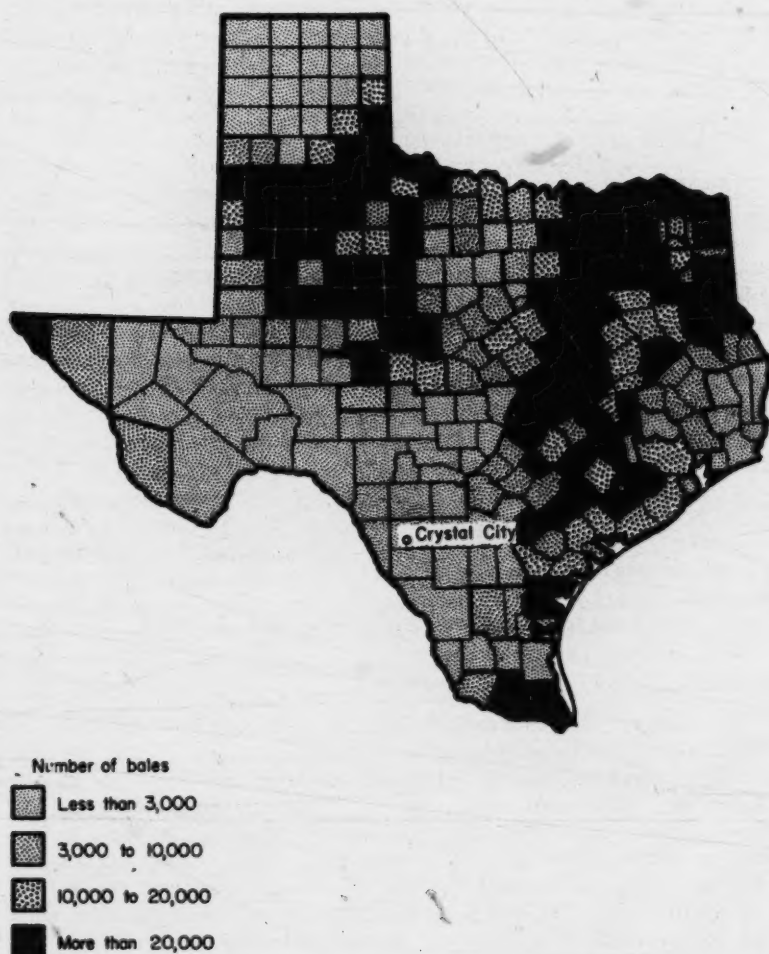
Cotton workers reported average weekly earnings of \$4.22 per worker in cash and kind, for an average of 47 hours per week, during periods of employment at chopping and picking cotton in 1938. This was a third less than the average wage reported in beet work. More than a quarter of the cotton jobs paid less than \$3 per week, while 3 percent paid over \$10 per week.²¹

The predominant wage for cotton pickers in 1938 was 50 cents per 100 pounds in most parts of Texas, although rates of 40 cents or less were reported. Judging from average earnings of Crystal City cotton workers, the average amount of cotton picked daily per individual during the 1938 season must have been about 140 pounds.

²⁰ Farm Placement Service, *Survey of Farm Placement in Texas, 1936 and 1937*, pp. 5, 82.

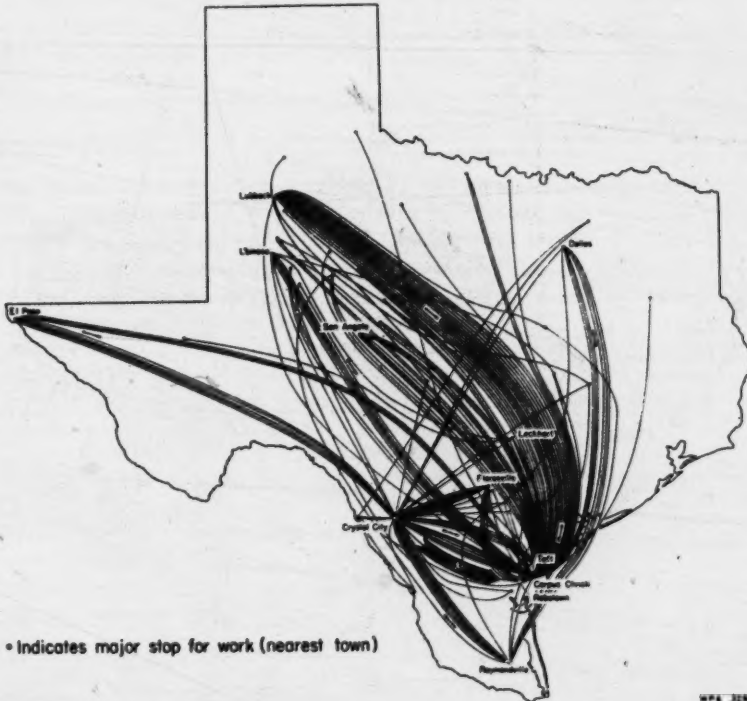
²¹ San Antonio cotton pickers reported weekly earnings averaging only \$3.22. This difference may be due partly to the greater experience of the Crystal City group.

Fig. 7 - TEXAS COTTON PRODUCTION, BY COUNTY, 1937



Source: Adapted from map appearing in Farm Placement Service, *Survey of Farm Placement in Texas, 1936 and 1937*, Texas State Employment Service, Austin, 1938 (appendix).

FIG. 8 - ROUTES OF TRAVEL OF MEXICAN COTTON WORKERS
100 FAMILIES OF CRYSTAL CITY, TEXAS
1938



The average cash income of Crystal City families from cotton work amounted to \$278 in 1938. Almost a third of the cotton-picking families earned less than \$200 from this work (table 6). This was much lower than average income from sugar beets, in spite of the fact that there were 3.7 workers in the average cotton-picking family as compared with less than 3 workers in the typical family employed in beets. Annual earnings per worker in cotton averaged \$75, or a little more than half as much as the average earnings per worker among Mexicans employed in sugar beets.

The low remuneration in cotton work is strikingly brought out by the experience of one family of nine persons, one member of which went to the beet fields while the rest of the family, including six workers, followed the cotton crop. The one beet worker earned \$230, while the other six workers together earned only \$440 in picking cotton.

Including income from all sources, the 87 families whose principal source of income was cotton work had total cash incomes

Table 6.—Cash Income of Crystal City Mexican Families From Cotton Work in 1938

Cash income from cotton work	Number of families
All families.....	100
\$100-\$150.....	29
\$150-\$200.....	24
\$200-\$300.....	10
\$300-\$400.....	15
\$400-\$500.....	10
\$500-\$750.....	7
\$750-\$1,000.....	2
\$1,000 or more.....	3

averaging \$508 in 1938, or only a few dollars less than the beet workers' incomes. This is a substantially larger figure than other surveys have shown. In 1936, for example, a study in Karnes County, Tex., showed that the Mexican cotton workers in that area had average total incomes of \$168 between September 1, 1935, and August 31, 1936.²² White families who picked cotton in Arizona during the 1937-38 season reported an average family income of \$393 in cash from all sources during 1937.²³ The difference between the Crystal City and Arizona cotton pickers in this respect was due in part to differences in size of family and number of workers in the two groups. The Crystal City Mexicans had an average of 3.7 workers per cotton-picking family, compared with only 2.5 workers per family among the Arizona cotton pickers.

Labor Policies and Working Conditions

A large supply of labor is needed by cotton growers during the chopping and picking seasons. Prior to the depression the labor of Texas Mexicans was supplemented at harvest time by the importation of workers from Mexico on a temporary contract basis. When this source of supply was no longer available, because of restrictions on immigration, the cotton farmers placed their emphasis upon discouraging Texas Mexicans from leaving the local labor market to work in sugar beets or other crops. The Texas Farm Placement Service has also followed this policy, in spite of the fact that the Mexicans who work in beets earn higher wages than do those who work in cotton and in winter vegetables within the State. Says the Farm Placement Service:

During the cotton season in Texas, all available labor is needed, and it is highly undesirable from a social as well as an economic viewpoint, for the migrant agricultural laborers of this State to move into adjoining States. It has, therefore, been the policy of the Employment Service to discourage

²²Vasey, Tom and Folsom, Josiah C., *Survey of Agricultural Labor Conditions, Karnes County, Texas*, U. S. Department of Agriculture, Bureau of Agricultural Economics and Farm Security Administration, Washington, D. C., November 1937, p. 8.

²³Brown, Malcolm and Casmore, Orin, *Migratory Cotton Pickers in Arizona*, Division of Research, Works Progress Administration, Washington, D. C., 1939, pp. 14, 28.

these long treks, which would inevitably result in labor shortages in certain parts of Texas, as well as work a hardship on the transients.²⁴

To discourage the transporting of Texas labor outside the State, the legislature in 1929 enacted the Emigrant Agent Act, requiring any person or firm sending labor out of the State to pay an annual State tax of \$1,000, execute a bond of \$5,000, and pay an additional graduated tax to the county of operation.²⁵ Few Mexican beet-labor contractors could afford these fees during the depression, but they continued to transport workers northward, often crossing the State line at night to avoid conflicts with the authorities.²⁶

Because of the fear of a labor shortage, the opening of the cotton season in various parts of Texas is usually accompanied by much excitement. According to the Farm Placement Service:

Meetings are held by growers; the yield is usually overestimated, the labor shortage grossly exaggerated; and the price set for picking is low. Every cotton grower in the valley wants to pick his crop in a day, if possible. Civic bodies, anxious to render service to their respective communities, use the press freely, and paint distressing pictures of the need for thousands of cotton pickers. Often they telephone cities five hundred miles distant urging assistance in harvesting an "unprecedented" crop.²⁷

One case reported by the Farm Placement Service illustrates the problems this agency has encountered in trying to regulate the movements of migratory laborers. The Placement Service had received a long distance telephone call stating that farmers in a certain community were in need of 2,000 cotton pickers. An employee of the Service hurried to the scene. He asked the names of growers who were most in need and was told that "every farmer in that trade territory was seriously in need of labor." Unable to secure any specific information as to labor demand, however, he made an immediate and thorough survey of the labor situation in the community. He found that there was actual need for only 85 cotton pickers.²⁸

This type of situation is still encountered by the Farm Placement Service according to its report for 1938:

Difficult to cope with still is the large grower or planter interested only in securing an abundance of labor to harvest his crop. He, in most cases,

²⁴ Farm Placement Service, *Survey of Farm Placement in Texas, 1936 and 1937*, p. 80.

²⁵ *Ibid.*, pp. 76-77.

²⁶ According to information received after the completion of the body of this report, by 1940 there were four licensed emigrant agents, three in San Antonio and one in Crystal City, all representing Michigan sugar-beet growers. These agents were responsible for 6,000 out of an estimated 10,000 Texas Mexican workers who went to the beet fields of Michigan in that year. Workers hired through emigrant agents must pass physical examinations required by Michigan State law before they leave Texas, and they are assured of employment when they arrive in Michigan. (*Interstate Migration, Hearings Before the Select Committee to Investigate the Interstate Migration of Destitute Citizens*, 76th Cong., 3d sess., Part 5, Oklahoma City Hearings, Sept. 19 and 20, 1940, pp. 1844-1846.)

²⁷ Farm Placement Service, *Survey of Farm Placement in Texas, 1936 and 1937*, p. 44.

²⁸ *Ibid.*, p. 45.

is not interested in getting only enough workers, but actually desires a labor surplus in the community, a condition which will eventuate in his having to pay much lower wages than would otherwise be the case.

The Service stated that in 1938, however, there was noticeably less clamor by the growers to the effect that there was a "shortage of labor" and that immigration officials should let down the barriers so that Mexicans from across the border could harvest the crop.²⁹

The Farm Placement Service has achieved considerable success in its attempt to minimize the waste of time and labor by migratory workers between jobs in Texas. It has worked out certain lines of travel and has estimated the number of workers needed in various areas at different times of the year. It makes every effort to see that the local labor supply is absorbed before a community imports outside labor. In 1938 it made 403,035 placements, of which 362,480 were in cotton.³⁰ Only a minority of the Crystal City cotton workers reported obtaining work through the Farm Placement Service, however, in 1938.

Control of the labor supply is complicated by the fact that the growers have a pronounced preference for contractors and laborers from outside their own communities. The reason for this is found in statements that "local contractors are too exacting at times in the amounts they receive for hauling, and they pick up and move their gangs out without warning." People brought in from distant points cannot easily return to their homes and are therefore more likely to accept such wages and conditions as may prevail.³¹

Because of the hiring of large groups of laborers from outside the localities where cotton is grown, Mexican labor contractors are numerous. This is especially true of the Coastal Bend Area, where the managers of many large ranches are unable to speak Spanish and so prefer to deal with their workers through Mexican contractors. As in spinach work, the contractor makes contacts with the employers and serves as business agent for his workers. He is usually given the responsibility of weighing

²⁹ *Annual Report of the Farm Placement Service, Texas, 1938*, Texas State Employment Service, Austin, 1939, pp. 9-10, 22. The report of the Farm Placement Service for 1939, received after the completion of the body of this report, said that "During the entire year there were no instances of disturbances resulting from * * * maladjustments in the labor market of local communities." (*Annual Report of the Farm Placement Service, Texas, 1939*, Texas State Employment Service, Austin, 1940, p. 7.)

³⁰ *Annual Report of the Farm Placement Service, Texas, 1938*, p. 31. According to the 1939 report of the Farm Placement Service, issued subsequent to the completion of the body of this report, 550,074 placements were made in 1939, an estimated 417,000 of which were made during the cotton season. This represented an increase of about 15 percent in placements of cotton workers as compared with the previous year, although cotton production was lower in 1939 than in 1938. (*Annual Report of the Farm Placement Service, Texas, 1939*, p. 29.)

³¹ *Farm Placement Service, Survey of Farm Placement in Texas, 1938 and 1937*, pp. 56-57.



Farm Security Administration (Lee).

Picking Cotton.



Farm Security Administration (Lee).

Houses of Mexicans in Crystal City.

and hauling the cotton and collecting the workers' earnings from the farmer. For these services he receives from each worker 5 to 10 cents for each 100 pounds of cotton picked.⁵² From the grower he may receive \$1.50 per adult for transporting workers to the farms, \$1 per bale for overseeing the work, and extra pay for weighing cotton. He is held responsible for any losses in groceries or picking sacks advanced by the grower if any of his workers leave before they have worked out their debts.

Many Mexican workers express resentment against the contract system, saying that the amounts collected by the contractors are often exorbitant. Short-weighing of cotton is said to be frequent. When grievances arise, the workers claim that the grower and the contractor try to pass the responsibility to each other, so that the complainants seldom secure satisfaction. In 1938, however, only a minority of the Crystal City cotton pickers worked under contractors; the majority depended on their own cars and their knowledge of the crop and migrated as independent family units or in small groups of families.

The Farm Placement Service is dealing with the labor contractors to an increasing extent, helping to route the migration of contractors' gangs of workers more efficiently so as to prevent an oversupply of migratory labor from piling up in any part of the State. This agency reported in 1939 that

* * * the so-called labor "contractor" is gradually realizing that a service is being rendered him as well as his workers in directing them to areas of actual labor shortages.⁵³

Child labor is prevalent in cotton; 17 percent of all Crystal City cotton workers included in the survey were under 14 years of age. This accounts in part for the large numbers of workers per family in this group.

Housing conditions are very inadequate in most of the cotton areas, especially at the peak season when such facilities as exist are greatly overtaxed. Truck loads of workers often camp by the side of the road, cooking by campfires and sleeping in the open. Towns with a winter population of two or three thousand are doubled in size almost overnight by job seekers. Overcrowding, exposure, and lack of sanitary facilities result in the spread of disease.

At present a majority of the pickers find living accommodations of some sort on the ranches where they work. Water is usually furnished, and in northwest Texas, at least, fuel as well. Income in kind, mainly housing, was assigned an average value of \$23 per family for the entire 1938 cotton season by the Crystal City cotton pickers.

⁵² Hamilton, C. Horace, *The Social Effects of Recent Trends in Mechanization of Agriculture*, Texas Agricultural Experiment Station, College Station, December 1938, pp. 9-10.

⁵³ *Annual Report of the Farm Placement Service, Texas, 1938*, pp. 9-10.

In some cases the houses provided by the growers are clean, although small and without conveniences; but in a majority of cases they are extremely poor and inadequate. A typical cotton picker's shack has one room, perhaps 10 by 16 feet in size. It may be divided in the center by a curtain, with one family of several persons living on each side of the curtain. Often no furniture is provided; each family brings its own dishes and blankets and sleeps on the floor. One toilet may accommodate 50 persons or more of both sexes. In the Pecos area, according to the families who worked there, only families with children were given tents in 1938; others kept their belongings in their cars or trucks and slept on the ground.

The Farm Placement Service has helped to remedy this situation by encouraging the establishment of camping grounds near the more congested centers where migratory workers gather. Camps with running water and sanitary toilets have been provided by city and county officials in Robstown, Sinton, and El Campo. "Concentration lots" or camping grounds of some sort have also been provided by the communities of Levelland, Lubbock, Lamesa, and Plainview, in west Texas.⁵⁴ All these camps are able to provide for only a small minority of the State's migratory workers, however.

The Farm Security Administration, the Federal agency most directly concerned with housing conditions among migratory workers, has also made some provision for housing of Texas seasonal farm workers. In 1938 a preliminary investigation by FSA disclosed a definite need for migrant camps and low-cost "labor homes" in Texas.⁵⁵ Farmers and business organizations there were quick to see the benefits of the FSA program in terms of greater stability and better social conditions among migratory workers, and the Federal agency was encouraged to build camps.

By the close of 1939 the FSA was constructing four migrant camps in Texas, at Raymondville, Robstown, Weslaco, and Sinton. They were to include 888 "shelters," 44 tent platforms, and 147 labor homes. Each camp has modern sanitary facilities, a recreational and educational program, a medical clinic operated in cooperation with local health agencies, and provisions for self-government by the camp dwellers. The labor homes, which rent for about \$8 per month, are more permanent than the shelters; they consist of two- or three-room cottages with modern conveniences.⁵⁶ The four FSA camps in Texas, together with four more which were to be built in 1940, will contribute to the

⁵⁴*Ibid.*, p. 41.

⁵⁵Silvermaster, Gregory, *Summary and Recommendations on Migratory Labor Problems in Texas*, unpublished ms., U. S. Department of Agriculture, Farm Security Administration, Washington, D. C., 1938.

⁵⁶Farm Security Administration, *Migratory Labor Camp Program as of Jan. 1, 1940*, U. S. Department of Agriculture, Washington, D. C.

raising of living standards among at least some of the Mexican cotton and onion workers.

ONION WORK

The Texas onion crop ranks next to beets and cotton as a source of work for migratory Crystal City Mexicans. Until about a decade ago large quantities of Bermuda onions were produced in the Winter Garden Area, and the Mexicans of Zavala and Dimmit Counties were able to find considerable employment in onion production without leaving their homes. As late as 1931 Zavala County shipped 417 carlots of onions to market, and near-by Dimmit County, 639 carlots. By 1938, however, the shipments of these two principal Winter Garden counties had declined to 122 and 254 carlots, respectively.³⁷

Nearly all of the Crystal City Mexicans who found work in the onion harvest in 1938 migrated to the lower Rio Grande Valley and the Coastal Bend Area. Willacy County, which is the largest onion-producing section in the world, attracted a considerable number of them, while others went to Floresville, Karnes City, Kenedy, and other places.

The onion harvest begins in south Texas at the beginning of April and reaches its peak in May. In north Texas it lasts into July. The average duration of onion jobs was less than 2 months, however, in 1938. Most of the workers who harvested onions before leaving for the sugar-beet fields worked only in April, while most cotton workers did not leave the onion fields until late in May.

In 1938, 89 of the 300 Crystal City families worked in onions. They earned an average of \$43 in cash from this work, plus \$12 in perquisites. Twenty-nine percent of these families earned less than \$25 from onion work (table 7). The wages reported by individual workers usually ranged from \$3 to \$4 per week,

Table 7.—Cash income of Crystal City Mexican Families From Onion Work in 1938

Cash income from onion work	Number of families
Total.....	89
	Percent distribution
Total.....	100
Less than \$25.....	29
\$25-\$40.....	27
\$40-\$60.....	21
\$60-\$100.....	15
\$100 or more.....	8

³⁷ Agricultural Marketing Service, reports on carlot shipments of fruits and vegetables in Texas, 1931 and 1938, U. S. Department of Agriculture, Washington, D. C.

although one family reported average weekly earnings of only \$2 per worker, and another with three men at work reported weekly earnings averaging \$8 per worker. Only two families gave onions as their principal source of income from migratory work.

Housing and working conditions in onion work are similar to those in cotton and spinach work.

MISCELLANEOUS TYPES OF WORK

Local Farm Work

Many Crystal City families obtained some farm work other than work in spinach, beets, cotton, and onions. There were 35 families who reported income from such work in 1938, averaging \$71 in cash per family. Some of the Mexicans worked at irrigating spinach and other vegetables, earning from 50 cents to \$1 per day. A few worked at clearing land (grubbing out mesquite brush), earning about \$25 per month. Others picked pecans, harvested carrots or tomatoes, worked as general farm hands, or cut wood.

Nonfarm Work

One family in six (forty-nine in all) reported some earnings from employment in nonfarm work. This work paid an average of \$97 per family in 1938. Twelve other families reported earnings averaging \$137 from WPA employment, and one family had a son in the Civilian Conservation Corps.

Most of the nonfarm employment was obtained in Crystal City during the winter. From December to April, 7 to 9 percent of all families were employed mainly in such work, while the number dropped to 3 percent or less from July to September, at the peak of the migratory labor season.

For the most part, only menial, unskilled types of work at wages little higher than those for agricultural labor were open to the Mexicans. The occupation reported most frequently by women in Crystal City was that of maid or general houseworker. Typical earnings in this work were \$2 per week plus \$1 in kind.

Among the men, wages in nonagricultural occupations were somewhat higher. Several reported having earned \$10 to \$15 weekly working in an ice factory or hauling ice to the loading platforms during the spinach season. Auto mechanics and helpers earned from \$1.50 to \$7.50 per week. A service-station attendant and a gasoline-truck driver earned about \$10 per week each.

Several Mexicans had businesses of their own. The most prosperous of these, a store owner, reported net earnings averaging \$100 per month through the entire year. Average earnings from miscellaneous work in Crystal City, however, were not much greater than average income from agricultural work.

Chapter III

FAMILY INCOMES OF THE MEXICANS IN 1938

AVERAGE ANNUAL INCOME

THE AVERAGE cash income of the 300 Mexican families studied in Crystal City totaled \$506 in 1938. The figure was increased to \$561 per family when perquisites such as housing, wood, and water received by the migratory farm workers were included. Since the families averaged 5.5 persons, the average yearly income among the Mexican migrants was approximately \$100 per person in 1938 (table 8).

Table 8.—Cash and Total Income of Crystal City Mexican Families From All Sources, 1938

Income	Distribution of families by—	
	Cash income	Total income ²
Total families.....	300	300
	Percent distribution	
Total families.....	100	100
Less than \$200.....	15	10
\$200-\$299.....	17	17
\$300-\$399.....	15	16
\$400-\$499.....	13	11
\$500-\$599.....	15	18
\$600-\$699.....	11	18
\$700-\$799.....	10	18
\$800-\$899.....	9	4
\$1,000-\$1,499.....		
\$1,500 or more.....		
Average ¹ income.....	\$506	\$561

¹Includes income in cash and kind.

²Median, based on more detailed distributions than those given above.

Average weekly earnings from all types of work, both migratory and nonmigratory, were approximately \$4.50 per worker in 1938.¹ This figure is weighted to take into account the varying duration of jobs in different crops or types of work.

¹This was somewhat higher than the average weekly incomes of \$5.01 per worker on all jobs, and \$5.60 per worker on agricultural jobs alone, reported by the urban Mexican group in San Antonio. The low wages paid to pecan shellers cut down the San Antonio average for all jobs.

The average annual income of the Crystal City Mexicans was about twice that of the urban Mexican group studied in San Antonio.² The Crystal City group had larger families, however—an average of 5.5 persons as compared with 4.6 in San Antonio. In addition, 96 percent of the Crystal City families did some migratory work in 1938, compared with only 22 percent of the San Antonio group. Since the expense of traveling to the cotton, beet, and onion fields amounted to a considerable sum in the course of a year, the income remaining for actual living expenses was somewhat lower than the amount indicated.

Other studies of migratory workers in recent years show lower average annual incomes than were reported by the Crystal City group. A California study, for example, showed that family earnings of migrants in that State dropped steadily from an average of \$343 in 1930 to \$261 in 1935.³

The higher earnings of the Crystal City Mexicans in 1938 were the result of several factors: (1) Wages in sugar beets, from which this group received the largest proportion of its income, have increased somewhat as a result of the Sugar Act of 1937, and were unusually high in 1938 because of good crops and resultant bonuses. (2) The Mexicans studied were experienced agricultural laborers and were able to obtain employment almost the year round by migrating from one crop to another. (3) The Mexicans had a relatively large number of workers per family.

INCOME BY SOURCE, FAMILY SIZE, AND NUMBER OF WORKERS

Families who derived the major part of their incomes from beet work had on the average larger annual incomes than any other group. Cotton workers were not far behind; both groups earned over \$500 cash per family in 1938. Families whose major source of income was other farm work (including spinach) around Crystal City had average earnings of \$400 in 1938. Nonfarm employment in Crystal City was intermediate between local farm work and migratory farm labor as a source of income. (See table 9 and appendix table 6.)

Table 9.—Average¹ income of Crystal City Mexican families, by principal source of income, 1938

Principal source of income	Number of families	Average cash income	Ave. to cash and kind
Total.....	900	\$508	\$591
Beet work.....	176	515	611
Cotton work.....	87	508	599
Other farm work.....	56	400	400
Nonfarm work.....	12	425	476

¹Median.

²The San Antonio Mexicans reported an average family income of \$251 in cash and kind.

³Division of Special Surveys and Studies, *Migratory Labor in California*, State Relief Administration of California, San Francisco, 1936, p. 121.

FAMILY INCOMES OF THE MEXICANS IN 1938 • 39

Table 10.—Average¹ income of Crystal City Mexican Families, by Size of Family, 1938

Size of family	Percent distribution of families	Average income
All families.....	100	\$361
1 person.....	8	328
2 persons.....	13	408
3 persons.....	15	455
4 persons.....	14	473
5 persons.....	15	470
6 persons.....	12	530
7 persons.....	7	750
8 persons.....	9	920
9 persons.....	10	1,107
10 persons or more.....		

¹ Less than 0.5 percent.

² Base too small for representation.

³ Median.

⁴ Includes cash and kind.

Table 11.—Average¹ income of Crystal City Mexican Families, by Number of Workers in Family, 1938

Number of workers	Percent distribution of families	Average income
All families.....	100	\$361
1 worker.....	18	344
2 workers.....	23	418
3 workers.....	21	520
4 workers.....	18	714
5 workers or more.....	24	983

¹ Median.

² Includes cash and kind.

Total family incomes varied in striking correspondence with size of family and number of workers. Two-person families had average incomes of \$338 in cash and kind, while families of ten persons or more averaged over \$1,100 in 1938 (table 10).

One-worker families averaged \$344 in cash and kind in 1938, while families with five workers or more averaged \$983 (table 11).

RANGE OF INCOMES

The great majority of Crystal City's Mexican families manage to live and travel from job to job on earnings of a few hundred dollars per year. In 1938, 53 percent of all families earned from \$300 to \$699 in cash. Many of these families lived under conditions of extreme poverty during the winter, depending for their food and shelter on a few days of work each week in the spinach harvest.

The Crystal City families showed a surprisingly wide range of incomes, however, in 1938. At the bottom of the scale were 15 percent of the families who received less than \$300 in cash, while at the other extreme were 10 percent who earned from \$1,000 to \$1,500 per family, and 3 percent who earned \$1,500 or more. (See table 8, p. 37.)

Generally speaking, the families with very low incomes were employed principally in spinach, cotton, or miscellaneous farm

work. Usually they were families with only one or two wage earners. Often one or more adults in such families were disabled by sickness. Finally, low incomes were associated with periodic unemployment. The following case history illustrates how a combination of such circumstances affected family earnings:

José Vasquez had worked at cutting spinach since he was 11 years old. In 1938 he was the only worker in a family of four. He and his young wife formerly worked together in the beet fields, but for 6 months after their second baby was born early in 1938 his wife was very sick, so they had to stay in Crystal City. José worked in spinach from the first of the year until the end of March, earning \$5 a week, or a total of \$30. After a month of idleness in April, he got a 2-month job picking onions, at which he earned \$50 and housing estimated to be worth \$4. In July he was unemployed again. Then from the first of August through October he earned \$1 a day, or a total of \$80, irrigating spinach. In November and December he went back to cutting spinach, earning \$36 in 2 months. His year's earnings totaled \$205 in cash.

At the other end of the income scale were the 13 percent of Crystal City Mexican families who earned \$1,000 or more during 1938. Nearly all of these were families of labor contractors, storekeepers, or beet workers. The exceptions were one or two large families who found work in spinach, onions, and cotton throughout the year. The families who earned comparatively high incomes from beet work were also very large, with many workers, and most of them put in a full work year in 1938.

These facts are brought out even more clearly by a consideration of the 10 families who earned \$1,500 or more in 1938. Each of these families was very large, consisting of 8 to 18 persons, with 5 to 12 workers per family. Nine were beet workers' families, with supplementary income from work in spinach and onions. One family of this group also earned \$500 on the side by transporting workers to and from the beet fields in its truck. The tenth family was that of a labor contractor. None of these families lost much time in unemployment in 1938. The following example is typical of the circumstances under which the largest incomes were earned:

The Moreno family consisted of 18 persons—an elderly couple, their 9 sons and daughters, aged 15 to 30, a daughter-in-law, and 6 grandchildren. Twelve members of the family worked in the beet fields in 1938, earning \$2,161 in cash. A car and a truck were required to transport the family and its possessions to and from Wyoming. During the winter they lived in a modern three-room house in Crystal City. They earned \$154 during 1938 by working in the spinach harvest. This brought their total cash income up to \$2,315 for the year.

From the standpoint of earnings per worker and per family member, families such as this one were not very far above the average Crystal City family in earning power. (See appendix table 7.) The wide range of total family incomes in Crystal City was therefore largely a result of wide variations in family size and number of workers.

Chapter IV

SOCIAL CONDITIONS AMONG THE MEXICANS

THE MEXICAN quarter of Crystal City is divided into two main parts, covering roughly a square mile. The larger section, called "Mexico Grande," is located north of the business section; the smaller section, "Mexico Chico," extends to the south and east of the center of the town. There is also a smaller settlement at River Spur, a little more than a mile from the town. These areas are crowded with the houses and shacks of the Mexicans in spite of the abundance of open land near by. They have no modern improvements; sewers and street lights are lacking. The unpaved streets are dusty in summer and muddy in winter.

Within this Mexican section are found the social maladjustments that usually accompany poverty. The ramshackle houses are overcrowded, health conditions are bad and medical care is inadequate, school attendance is poor and unenforced, relief is not available to many of those who are unemployed, and the social life of the Mexicans is hedged about with economic and racial restrictions.

HOUSING

The houses of the Crystal City Mexicans are mostly unpainted one- or two-room frame shacks with single walls, the cracks being covered on the outside with narrow strips of lumber. A few are adobe huts, a cheap and durable type of sun-baked brick construction used widely in Mexico. The majority have dirt floors; only comparatively prosperous families possess houses with wooden floors. Tin roofs predominate, often with no ceilings below, so that in sunny weather the insides of the shacks become very hot. Most of the houses have one or two glass windows, but some have only cheese cloth or flour sacks over the window openings to keep the insects out. Flies, attracted to the Mexican quarter by the open toilets and the lack of any system of refuse disposal, find their way into the houses in spite of such safeguards.

The poorer houses are patched together from scraps of lumber, old signboards, tar paper, and flattened oil cans. They usually

have one room, with a lean-to kitchen in some cases. Some of the occupants do not have stoves, but cook outside over open fires in warm weather and in open washtubs inside when the weather is cool. Many of these shacks were built by squatters on public land or on land rented for 50 cents per month.

Less than a tenth of the 300 dwellings visited had electric lights, and still fewer had indoor plumbing. The usual procedure in obtaining water was for several families to share a single outdoor water faucet, each paying 50 cents to \$1 per month water rent for this privilege. About 1 family in 10 used wells, cisterns, or river water.

Most of the Mexicans' houses were filled to overflowing, there being an average of 2.6 persons to the room.¹ As size of family increased, the number of rooms per house failed to keep pace; 2-person families averaged about 1 person to the room, while families of 10 persons or more had an average of more than 4 persons to the room (table 12). Fifteen families of 10 persons or more lived in one- or two-room houses.

Table 12.—Crystal City Mexican Families, by Size of Family and Number of Rooms per Family Dwelling, 1938

Size of family	Number of families	Average ¹ number of rooms per family
Total.....	300	2.1
1 person.....	1	†
2 persons.....	25	1.8
3 persons.....	30	2.0
4 persons.....	45	2.0
5 persons.....	41	2.1
6 persons.....	40	2.3
7 persons.....	36	2.3
8 persons.....	28	2.3
9 persons.....	19	2.4
10 persons or more.....	20	2.5

† Too small for representation.

¹Median.

More than two-thirds of the houses in the Mexican section had one or two rooms, 19 percent had three rooms, 7 percent four rooms, and 2 percent five rooms or more. The result of this overcrowding was to be seen in the unsanitary conditions which prevailed. Children slept on dirt floors, rolled up in quilts; clothing was kept in boxes under beds or cupboards; and although most of the Mexican housewives strove for neatness and cleanliness, these were qualities impossible to achieve in the face of such obstacles.

A majority of the Mexicans—54 percent—owned their own homes in 1938. Most of them had bought their houses during the "spinach boom" of the twenties and early thirties, when spinach cutters

¹The Mexicans of San Antonio averaged 2.2 persons to the room. The maximum number compatible with health and decency is usually estimated to be 1 person per room.

were earning 10 cents or more per bushel. In this period, in order to insure a steady supply of labor, the growers and real-estate agents encouraged them to buy land and settle down. A local lumber company cooperated by selling lumber on installments to those wishing to build their own houses. Prices paid for the houses ranged from \$25 for a makeshift shack built during the depression to \$640 for a four-room house purchased during the "spinach boom." Many of the home owners were heavily in debt to the bank or behind in their taxes.

The 32 percent of the families who rented their houses paid an average of a little over \$3 rent per month. Rented houses averaged only 2 rooms, as compared with 2.3 rooms in houses owned by the occupants. One family in seven paid no rent, but lived with relatives or in "colonies" owned by spinach-labor contractors. One such group of dwellings consisted of 20 one-room houses with 6 outdoor privies and 2 water faucets to serve all of the residents.

HEALTH

Because of low incomes, poor housing, unsanitary conditions, and inadequate medical care, sickness and disease are common among the Mexicans of Crystal City and the Winter Garden Area. According to a relief official in a neighboring town, the tuberculosis rate is extremely high in the Winter Garden because the Mexicans have been undernourished over a long period of years. Enteritis, tuberculosis, and other diseases are widespread in the Crystal City area.

From April to July of 1939 there was an epidemic of diarrhea in Zavala County. At least 2,000 persons became ill. When one member of a family contracted the disease, almost invariably all other members would catch it. Several infants died before a doctor could reach them. By the end of June, 16 persons, 15 of whom were Mexicans, had died of diarrhea in the county. All of these but one were babies less than a year old. This epidemic was directly traceable to poor sanitation in the Mexican communities.²

Many cases of tuberculosis were reported among the 300 families studied. In the first 10 months of 1939, 25 persons died of tuberculosis in Zavala County; this is equivalent to about 290 tuberculosis deaths per 100,000 population per year.³ The Mexicans reported great difficulty in gaining admittance to a State institution for the treatment of tuberculosis because beds were not available except for the most advanced cases.

²Data from Earle T. Norman, Director, Uvalde-Zavala County Health Unit, Uvalde, Tex.

³By way of comparison, the tuberculosis death rate in the city of San Antonio was 129 per 100,000 population in 1938, and that of the San Antonio Mexicans alone was about 247 per 100,000.

Illness was very common among small children, partly because of the hardships accompanying extended periods of migration to the beet and cotton fields. Not only the long trips but also the unsanitary housing and living conditions prevalent in agricultural work had especially deleterious effects on the health of the children.

Many of the families complained that they could not afford the \$2 fee charged for each visit by private physicians and that the public health services available to them were inadequate.

EDUCATION

Almost 22 percent of Zavala County's population was illiterate in 1930.⁴ Nearly all illiteracy was among the Mexicans. The older generation is limited by its background of recent immigration and low economic status; and the younger generation is further handicapped by inability to attend school regularly when following migratory agricultural work.

Only about 17 percent of the children aged 7 to 10 years and about 40 percent of those from 11 to 13 years attended school for the full year in 1938 (table 13).⁵ Of the remainder almost

Table 13.—School Attendance of Crystal City Mexican Children, by Age at Last Birthday, 1938

School attendance	Total	Age in years		
		7-10	11-13	14-18
Total.....	556	128	112	316
		Percent distribution		
Total.....	100	100	100	100
Did not attend.....	86	83	38	84
Attended part of the time.....	15	30	38	8
Attended full time.....	19	17	42	10

half were in school during part of the year; many attended only during the spinach season, from November or December through March. The rest did not go to school at all in spite of a legal requirement that all Texas children 7 to 16 years of age must attend school for at least 120 days each year.⁶

The schooling offered in Crystal City consists of a grammar-school course and 4 years of high school. Most of the Mexican children go to a grade school on the edge of the town. There

⁴Bureau of the Census, *Fifteenth Census of the United States: 1930*, Population Vol. III, Part 2, U. S. Department of Commerce, Washington, D. C., 1932, p. 1010. In San Antonio the percent of illiteracy was 7.7.

⁵The San Antonio children of migratory families had a much better record of school attendance, half of all those aged 7 to 10 and 62 percent of those aged 11 to 13 having attended full time in 1938.

⁶*General Laws of Texas, 1939*, 46th Legis., ch. 4, p. 227. Earlier legislation included similar provisions.

Table 14.—Years of School Completed by 18-Year-Old Crystal City Mexican Youth, 1938

Highest school grade completed	Number of youth
Total	61
	Percent distribution
Total	100
Less than 1 grade	28
First grade	26
Second grade	15
Third grade	20
Fourth grade	10
Fifth grade	5
Sixth grade	2
Seventh grade	2
Eighth grade	2
Ninth grade	—
Tenth grade	2

is an implicit understanding that the Mexicans shall attend this school, partly because of their language difficulties and their peculiar attendance problems.

Few Mexican children go beyond the third or fourth grade. The usual reason for dropping out is the necessity of migrating with their families. The Crystal City high school is open to Mexican students but few attend. Only the children of the most prosperous families are apt to go beyond grade school, and these are likely to be excluded from most of the high school's social activities.

The years of school completed by Crystal City Mexican youth by 1938 increased progressively from an average of 1.3 years for 8-year olds to 3.0 years for 14-year olds. Among 18-year-old youth, who had had time at least to enter high school, the average number of school grades completed was only 2.6. (See appendix table 8.) One in five had never completed the first grade and one in seven had completed five grades or more (table 14).⁷

Because of their poverty and inadequate schooling, American-born Mexican youth have scant opportunity to find employment except in the migratory agricultural work followed by their parents.

PUBLIC ASSISTANCE

Only one Mexican family in five reported having received public assistance of any type since 1932. The largest number of these first went on relief in the period from 1934 to 1936. The reasons for this small amount of dependence upon public assistance were: (1) Most of the Mexican families managed to find work of some sort, even though wages were low, throughout most of the year. (2) Various legislative and administrative

⁷ In San Antonio 18-year-old youth averaged 5.2 school grades completed; only 5 percent had not completed the first grade.

requirements operated to prevent the Mexicans from qualifying for public assistance.

In 1938, although total family unemployment was comparatively low, about 22 percent of the individual workers were unemployed for 150 days or more during the year. Only 9 percent of all families, however, reported any income from public assistance in 1938. About half of these were recipients of work relief, and the rest obtained surplus commodities. (There had been no direct cash relief in the State of Texas since 1936.)

The average income during 1938 from all types of public assistance, including WPA, was estimated by the Mexicans at \$24 per family receiving assistance. Surplus commodities were assigned an average cash value of \$4 per family per month, and consisted of such items as butter, flour, beans, and prunes. The minimum wage on WPA (the rate at which the Mexican project workers in Zavala County were paid) was approximately \$30 per month in 1938⁶.

At the time of the survey only two WPA projects were in operation in Zavala County. The great majority of project workers were Americans of European stock rather than Mexicans. The requirement that all WPA employees must be citizens excluded many heads of Mexican families from this type of assistance. Surplus commodities were more readily available to them.

Almost all of the Mexicans were excluded from coverage by the unemployment compensation and old-age insurance provisions of the Social Security Act because they were agricultural workers throughout the year. Many elderly Mexicans were also excluded from the old-age assistance program because they were not American citizens.

⁶In 1939, under an act of Congress requiring a revision of WPA wage rates, the minimum in Zavala County was increased to \$36.40 per month.

Chapter V

PROSPECTS FOR THE MEXICAN MIGRATORY WORKERS

THE IMMEDIATE future of the Mexican migratory workers of Crystal City and south Texas depends to a great extent on the amount of employment available in the crops now requiring large quantities of Mexican labor. An analysis of employment prospects in these fields entails not only an examination of trends in production but also an estimate of the probable extent to which hand labor will be replaced by machines in the near future.

GENERAL TRENDS

Prospects for employment among the Mexicans are primarily dependent upon trends in four important crops: spinach, sugar beets, cotton, and onions.

Spinach

The decline in production of spinach around Crystal City is a trend not likely to be reversed in the near future. A severe weed problem, competition from other spinach-growing areas, and depletion of local soil and water resources are behind this trend. To alter the situation and bring about increased employment in spinach, prices would have to rise and steps would need to be taken to restore the efficiency of spinach growing in the Winter Garden Area. Such steps might include: (1) control of weeds through more careful cultivation of spinach, plowing of the fields immediately after the harvest, and burning of weeds along fence rows; and (2) making water accessible more cheaply by building along the Nueces River a series of dams, already projected, which would raise the water table and provide river water for irrigation the year round.

Where the weed problem is too far out of control, it would be desirable to introduce a system of crop diversification, replacing some spinach acreage with other vegetables which can more easily be cultivated; and where the soil has become depleted through years of one-crop farming, rotation of spinach with alfalfa or other soil-building crops may be necessary to restore

fertility. Such policies as these would in the long run help to stabilize the region's economy. Crop diversification and rotation would hardly bring increased employment, however, unless they involved chiefly the growing of new types of vegetables which would require more field labor than do present crops.

Mechanization is not likely to affect the spinach workers to any great extent. The harvest operation could not easily be mechanized: a machine could hardly select the healthy, mature spinach plants and discard the others and the weeds. Since planting is already done by machine, and spinach is seldom hoed or weeded, there is little immediate possibility of further mechanization.

Sugar Beets

As long as the sugar-beet industry is protected by Federal legislation against competition from foreign cane sugar, it is probable that it will remain stable and moderately prosperous and that no sharp reduction in the demand for beet labor will be felt by the Texas Mexicans. However, technological improvements in the growing of sugar beets have had, and probably will continue to have, the effect of gradually decreasing the amount of labor required in this crop.

Mechanization has been most marked in the blocking of beets by means of cross-cultivation with a tractor-drawn cultivator equipped with special shovels. This process is estimated to reduce the hours of hand labor involved in blocking and thinning from an average of 41 hours to 26 hours per acre. The method is particularly well adapted to flat, nonirrigated areas, and is already extensively used in Iowa and Minnesota.¹ The wage rate set in these States under the Sugar Act of 1937 was \$2.50 per acre less when the beets were cross-cultivated than when the blocking was done by hand.²

As early as 1893 at least two mechanical beet harvesters had been invented, but no such device has yet come into general use. The most efficient harvester now in existence lifts the beets, tops them, and throws them into windrows with the expenditure of only 5 to 8 man-hours per acre, as compared with about 20 to 30 hours required by hand methods. The overhead and operating costs of the machine, however, were \$7 to \$10 per acre in 1936, so that it was almost as expensive as hand labor. Few growers may be expected to invest money in beet harvesters, therefore, so long as a cheap labor supply is available.³

¹Nacy, Loring E. and others, *Changes in Technology and Labor Requirements in Crop Production: Sugar Beets*, Report No. A-1, National Research Project, Works Progress Administration, Philadelphia, Pa., August 1937, p. 24.

²Liss, Samuel, *Protection of Sugar Beet Field Workers Under the Federal Sugar Control Acts of 1934 and 1937*, unpublished ms., U. S. Department of Agriculture, Farm Security Administration, Washington, D. C., 1939.

³Nacy and others, *op. cit.*, p. 25.

Cotton

Employment in cotton has been declining in recent years because of both decreasing production and increasing mechanization. The decline in production has been due to a number of factors, including drought, the crop-control program, and low prices. Dropping prices were in turn caused largely by the shrinking world market for American cotton as large-scale production increased in South America, Egypt, the Soviet Union, South Africa, and China and by the use of cotton substitutes such as cellulose fibers.⁴ These trends do not seem likely to stop in the near future.

As in the case of beets, the trend toward mechanization in cotton has taken place mainly in the preharvest operations. A study of 141 representative farms in the high plains area of western Texas showed that the proportion of cotton farmers using tractors rose from 25 percent in 1934 to 79 percent in 1937.⁵ When a farm owner buys a tractor and takes over farms formerly operated by tenants in order to cultivate them himself, the number of tenant families displaced by a single tractor usually ranges from 2 to 10 or more.⁶ The proportion of farmers in the western semiarid section (Texas and Oklahoma) who used multirow cultivators rose from 18 percent in 1919 to 69 percent in 1929 and 82 percent in 1936.⁷

This striking trend toward mechanization and large-scale production of cotton in the western high plains area so far has had a direct effect chiefly on tenant farmers who were employed to plant and cultivate the cotton before the harvest. Most of the tenant farmers in northwest Texas were white persons of European stock, although some were Negroes and a few were Mexicans. The principal effect of the mechanization of preharvest operations upon the Mexican migratory workers has therefore been an indirect one: in thousands of cases the tenant farmers who have been "tractored off the land" in Oklahoma and northern Texas have become migratory workers, competing with the Mexicans for jobs. The results, as reported by the Mexicans of Crystal City, have been low wages and decreased opportunities for employment, especially in northern Texas.

⁴Canning, J. B., *Memorandum to the Senate Committee on Civil Liberties and the Rights of Labor*, California Subcommittee Hearings, December 19, 1939, pp. 25-26.

⁵Bonner, C. A. and Magee, A. C., "Some Technological Changes in the High Plains Cotton Area of Texas," *Journal of Farm Economics*, Vol. II, No. 3, August 1938, pp. 605-616.

⁶Taylor, Paul S., "Power Farming and Labor Displacement in the Cotton Belt, 1927," *Monthly Labor Review*, Vol. 46, No. 3, March 1938, p. 8.

⁷Holley, William C. and Arnold, Lloyd E., *Changes in Technology and Labor Requirements in Crop Production: Cotton*, Report No. A-7, National Research Project, Works Progress Administration, Philadelphia, Pa., September 1938, p. 43.

Mechanization has also had a direct effect on Mexican laborers in cotton, especially in the chopping (thinning) process. Multi-row cultivation and the increasing use of mechanical cotton choppers have reduced considerably the number of jobs available to Mexicans prior to the picking season. But the picking process, in which most migratory labor is employed, remains unmechanized.

If a satisfactory mechanical cotton picker should be developed in the future, its impact on the migratory cotton workers would be tremendous. It would have a particularly great effect on the Mexicans, because it would be used most widely in the flat areas of Texas and the Mississippi Delta, where tractors and large-scale farming are most common. It has been estimated that if picking machines were used on half of the Nation's cotton acreage, as is by no means impossible, some two million cotton pickers might be displaced.⁸

It is not likely, however, that the use of the mechanical cotton picker would immediately spread throughout the Delta and western cotton areas, even if it were extremely efficient and if it were marketed without restrictions by the manufacturers. The capital outlay involved in buying such a machine would be too high for most farmers, at least as long as cotton can be picked by hand for as little as 50 cents per 100 pounds.⁹ The principal inroads on Mexican cotton labor in the near future will probably result from (1) intensified competition for jobs from dispossessed white and Negro tenant farmers and (2) further mechanization of preharvest operations.

Onions

Total onion production in Texas has been on the increase for the past two decades, but in the Winter Garden Area it has declined sharply. This fact, together with the short duration of the onion season, makes it unlikely that the onion crop will be an increasing source of employment for the Crystal City Mexicans in the future.

Summary of Prospects

In short, employment opportunities for the Mexicans may be expected to decrease if there is a continued decline in spinach and onion production in the Winter Garden Area and in cotton production in Texas and in the Nation as a whole, and if the trend toward mechanization of beet and cotton field labor continues.

The drop in spinach production in the Winter Garden Area is the most important single factor affecting the employment of

⁸Ibid., pp. 40, 61-62.

⁹See Horne, R. L. and McKibben, E. G., *Changes in Farm Power and Equipment: Mechanical Cotton Picker*, Report No. A-7, National Research Project, Works Progress Administration, Philadelphia, Pa., August 1937, p. 18.

the Crystal City Mexicans. This will continue to be important since little has been done to control the weeds or remedy the other causes of the decline.

Eventually, diversification of vegetable farming may supplement employment in spinach, providing more stable employment not only in the winter but also at other times of the year. Crops such as lettuce, carrots, and broccoli were being grown on an increasing scale at Carrizo Springs, near Crystal City, in 1939. If this trend becomes important in other parts of the Winter Garden Area, new types of local farm work may become available to the Mexicans.

But such a readjustment would take time; and meanwhile some workers will no doubt move to other winter quarters, as hundreds have done already, in the hope that work will be more plentiful elsewhere. Winter work is scarce almost everywhere, however, and a majority of the Mexican families are closely tied to Crystal City by personal and property bonds; therefore most of them are likely to return each year, even if winter employment opportunities are shrinking. As long as the downward trend in spinach continues, an increasing labor surplus will probably pile up in the towns and cities of the Winter Garden Area.¹⁰

It is frequently suggested that the problem of surplus Mexican labor can be solved by sending unemployed workers "back where they came from." As a matter of fact, the tide of migration has been predominantly southward into Mexico ever since 1930, when voluntary repatriation began to predominate over immigration from Mexico. Of the Mexicans now in this country, a majority are citizens, a whole new generation having acquired citizenship by birth. Almost 9 out of 10 of the Mexican families in Crystal City contained 1 or more citizens of the United States.

The Mexican Government established in 1939 a program of repatriation for its nationals in this country. The plan called for a broad farm resettlement program to provide homes for

¹⁰ In 1939 there was a sizable surplus of labor in the Crystal City spinach-growing area. Acreage had been abandoned in Zavala County because of a lack of water for irrigation, and some of the early crop was damaged by high winds and insects. In addition, packing sheds had been built at Uvalde and an increasing amount of spinach was being shipped from that point. It was estimated that there were at least 800 surplus workers in and around Crystal City. Some workers were sent to Haverick County, where production was increasing, but employment was not found for all of the Crystal City workers. (*Annual Report of the Farm Placement Service, Texas, 1939*, Texas State Employment Service, Austin, 1940, p. 21.)

In 1940 large-scale reemployment in defense industries resulted in the absorption, at least temporarily, of part of the surplus Mexican laborers in Texas. Many sugar-beet workers failed to return to Texas in that year, preferring to remain in the North where wages were higher and work was becoming more plentiful. Others found employment in Texas defense industries. No real shortage of farm labor occurred, however, and there was no reason to believe that the problem of surplus Mexican labor had permanently been solved. (*Farm Placement Service, Origins and Problems of Texas Migratory Farm Labor*, Texas State Employment Service, Austin, September 1940, pp. 37, 77-78.)

19,500 Mexicans now living in the United States under conditions of economic distress. Some 200 families per month were to be returned to Mexico during 1940.¹¹ This number, however, would account for only a small minority of the needy Mexicans in this country.

CONCLUSIONS

The situation of the Mexican migratory workers of Crystal City is a striking example of the relationship between low-paid labor and the development of certain types of agriculture. Spinach and onion farming reached their present proportions in south Texas largely because of the presence of thousands of Mexicans who have customarily worked for wages of a dollar a day or less. Most of the Crystal City workers were able to live on these low wages only because they found employment in cotton, sugarbeets, and other crops during the rest of the year, returning to the Winter Garden Area for the spinach harvest.

The experience of the Crystal City group has demonstrated two things: (1) It is possible for some migratory families to find employment throughout most of the year; and (2) even when considerable regularity of employment is attained, average family incomes of migratory workers are below the minimum required to provide adequately for the necessities of life, especially when families are large, as among the Mexicans.

A permanent solution for the problems of the Mexican agricultural workers cannot be found as long as the migratory labor market is constantly flooded with recruits from deserted farms and from industrial centers where unemployment is widespread. The incomes and living standards of the Mexican migratory workers will continue to be low, therefore, as long as the general problems of unemployment, low wages, and an unstable agricultural economy remain unsolved in the Nation as a whole.

¹¹ *The Evening Star*, Washington, D. C., October 11, 1939. Subsequent information reveals that from January 1, 1939, to September 1940 a total of 4,451 Mexican agricultural workers had been returned to Mexican farm projects from the lower Rio Grande Valley. (Farm Placement Service, *Origins and Problems of Texas Migratory Farm Labor*, Texas State Employment Service, Austin, September 1940, pp. 78-79.)

Appendixes



Appendix A

SUPPLEMENTARY TABLES

Table 1.—Trends in Spinach Production in the United States and Texas, 1919-1939¹

Year	United States production (thousands of bushels)	Texas				
		Production (thousands of bushels)	Acres in spinach	Bushels per acre	Price per bushel of spinach for market ²	Farm value of crop (thousands of dollars)
1919	5,499	1,560	4,800	325	\$0.95	\$1,485
1920	6,395	1,695	5,080	300	.80	1,349
1921	8,285	2,105	6,280	258	.85	1,129
1922	10,250	2,369	6,210	280	.85	1,494
1923	12,459	2,549	6,440	270	.80	1,274
1924	13,095	2,740	6,700	315	.75	2,055
1925	13,978	4,751	14,400	329	.65	2,059
1926	15,797	5,130	15,680	305	.60	2,050
1927	16,504	6,457	16,450	298	.50	2,100
1928	19,978	8,130	25,600	300	.45	2,304
1929	20,078	8,595	26,020	300	.35	1,960
1930	15,595	8,493	25,020	218	.37	2,114
1931	17,379	7,074	27,260	254	.35	2,055
1932	14,054	6,498	30,800	210	.45	2,975
1933	15,542	8,750	44,000	130	.35	2,008
1934	16,105	6,055	36,800	170	.37	2,223
1935	16,104	3,780	35,000	105	.35	2,128
1936	20,149	6,777	54,400	139	.30	2,059
1937	22,374	8,154	58,000	141	.30	2,214
1938	25,921	8,898	48,000	138	.30	1,595
1939	19,059	5,955	41,400	144	.31	1,071
1940 ³	15,955	5,955	37,800	139	.60	1,097

¹Data from Agricultural Marketing Service, crop reports on spinach for market and for manufacture, 1919-1939, U. S. Department of Agriculture, Washington, D. C.

²Figures are for spinach for market only. Spinach for manufacture (canning) was reported only from 1929 on, and was excluded in calculating average price per bushel.

³Includes some acreage not harvested, because of market conditions, which was excluded in computing total value.

⁴Data obtained subsequent to the completion of the body of the report. See Agricultural Marketing Service releases on spinach for market and for manufacture in 1940, U. S. Department of Agriculture, Washington, D. C., Dec. 19, 1940.

Table 2.—Trends in Spinach Production in Texas, 1925-1939¹

Item	Annual averages		
	1925-1929	1930-1934	1935-1939
Acres	20,984	32,042	47,500
Production (thousands of bushels)	6,011	6,152	6,100
Bushels per acre	286	199	128
Price per bushel (weighted average) ²	\$0.47	\$0.42	\$0.34
Value of crop (thousands of dollars)	\$2,895	\$2,602	\$1,940
Indices			
Acres	100	150	227
Production	100	102	102
Bushels per acre	100	69	45
Price per bushel	100	89	72
Value of crop	100	114	65

¹Data from Agricultural Marketing Service, crop reports on spinach for market and for manufacture, 1925-1939, U. S. Department of Agriculture, Washington, D. C.

²Includes some acreage not harvested, because of market conditions, which was excluded in computing total value.

³Weighted to take into account the size of the crop each year.

⁴Figure is for spinach for market only. Spinach for manufacture is excluded.

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Table 3.—Carlot Shipments of Spinach From Texas, Zavala County, and Crystal City, 1928-1938¹

Year	Texas	Zavala County	Crystal City
1928	5,305	2,640	2,040
1929	8,007	3,775	3,359
1930	7,052	4,729	3,915
1931	6,502	4,865	3,890
1932	6,959	4,950	4,048
1933	5,681	3,036	2,694
1934	5,970	3,823	3,469
1935	3,843	1,804	1,325
1936	5,666	2,968	1,974
1937	5,196	3,350	3,138
1938	4,358	1,909	1,077
1939	4,351	1,423	983

¹Data from Agricultural Marketing Service, reports on carlot shipments of fruits and vegetables in Texas, 1928-1939, U. S. Department of Agriculture, Washington, D. C.

Table 4.—Percent Distribution of Activities¹ of 300 Crystal City Mexican Families, 1938

Activity	Month											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total	100	100	100	100	100	100	100	100	100	100	100	100
Spinach	90	90	89	24	5	5	1	1	3	4	50	81
Beets	—	—	—	17	35	60	38	39	29	28	17	1
Cotton	9	9	1	9	35	20	29	36	30	30	31	6
Onions	—	—	—	22	11	4	1	—	—	—	—	—
Other farm	2	2	2	4	4	4	4	3	3	3	3	2
Nonfarm	7	7	7	7	4	3	3	3	3	3	6	9
Unemployed ²	8	8	1	17	2	4	9	1	2	1	2	1

¹Less than 0.5 percent.

²When 2 activities or more appeared in 1 family in a single month, the activity of longest duration in terms of man-hours was used.

³Unemployment was defined as total family unemployment for a major portion of a month.

Table 5.—Summary of Average¹ Earnings and Hours in Various Types of Work of Crystal City Mexicans, 1938

Type of work	Number of families employed	Average family cash earnings	Average individual weekly earnings	Average hours per week	Average duration of job (days)
Total	300	\$506	\$4.58	43	96
Spinach	277	194	3.13	40	79
Beets	186	400	6.22	49	122
Cotton	100	276	4.22	47	95
Onions	36	43	5.43	46	44
Other farm	36	71			
Nonfarm:					
Private employment	49	97	2.75	40	60
Emergency Government employment	13	205	\$5.00	30	128

¹Median.

²Allows for time lost.

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Table 6.—Distribution of Incomes of Crystal City Mexican Families, by Principal Source of Income, 1936

Total family income	Principal source of income							
	All sources		Rents		Cotton		Other farm	
	Cash only	Cash and kind	Cash only	Cash and kind	Cash only	Cash and kind	Cash only	Cash and kind
All families: Number.....	300		275		97		26	
Percent.....	300	300	300	300	300	300	300	300
Less than \$200.....	1	—	1	—	—	—	—	—
\$200-\$299.....	14	30	11	7	17	13	22	23
\$300-\$399.....	17	17	17	16	14	15	27	27
\$400-\$499.....	15	16	14	15	14	13	27	27
\$500-\$599.....	13	11	11	10	16	13	11	7
\$600-\$699.....	8	11	9	13	6	9	—	4
\$700-\$799.....	8	7	10	9	7	5	—	—
\$800-\$899.....	8	7	4	5	10	13	4	4
\$900-\$999.....	8	5	6	5	6	5	4	4
\$1,000-\$1,099.....	6	8	7	10	3	5	4	4
\$1,100-\$1,199.....	4	4	5	5	5	5	—	—
\$1,200-\$1,299.....	2	3	3	3	—	3	—	—
\$1,300 or more.....	1	1	2	2	1	1	—	—
Average ¹ annual income.....	\$606	\$601	\$615	\$611	\$608	\$609	\$600	\$600

¹Median, based on more detailed distributions than those given above.

Note.—Distribution of incomes of 18 families whose principal source of income was nonfarm work omitted because of the small number of cases. Their average cash income was \$425; cash and kind, \$475.

Table 7.—Size of Family and Number of Workers in Relation to Income Distribution, Crystal City Mexican Families, 1936

Total family income	Percent of families	Average ¹ family size	Average ¹ number of workers
Total.....	100	5.5	3.1
\$200-\$299.....	10	3.8	1.8
\$300-\$399.....	17	3.8	1.8
\$400-\$499.....	16	4.5	2.3
\$500-\$599.....	11	5.1	2.6
\$600-\$699.....	11	5.4	2.8
\$700-\$799.....	7	6.5	3.6
\$800-\$899.....	7	6.8	(2)
\$900-\$999.....	5	7.5	4.3
\$1,000-\$1,099.....	6	8.6	(2)
\$1,100-\$1,199.....	4	8.9	(2)
\$1,200 or more.....	4	9.0	(2)

¹Median.

Note.—More than 4.5 workers.

Table 8.—Years of School Completed by Crystal City Mexican Children 7 Through 18 Years of Age, 1936

Age at last birthday	Number of children	Average ¹ number of school grades completed		
		Both sexes	Males	Females
Total.....	535	2.1	2.1	2.2
7 years.....	42	—	—	—
8 years.....	42	1.3	1.0	1.4
9 years.....	32	1.6	1.9	1.4
10 years.....	42	1.7	1.7	1.7
11 years.....	35	2.0	2.2	1.9
12 years.....	32	2.4	2.4	2.4
13 years.....	45	2.6	2.3	3.0
14 years.....	46	3.0	3.2	2.9
15 years.....	52	2.8	3.0	2.7
16 years.....	45	3.0	3.3	2.6
17 years.....	54	2.3	3.2	2.3
18 years.....	41	2.6	2.7	2.3

¹Median.



Appendix B

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